

# Green Centre News

## *Do it yourself* - by Muriel Garland ZWM

The result of the Copenhagen Summit was disappointing but not exactly unexpected. When you are trying to get several countries to agree a way forward on climate change it is never going to be easy. And when those countries include China and India who want to enjoy their own industrial revolution just as Britain did in the past the chances of reaching an agreement are slim.

But the fact that the major players didn't come up with a detailed plan of how to reduce carbon emissions and monitor progress doesn't have any effect on what we need to do personally at home or at work. In fact, if the governments did legislate about such things we'd probably accuse them of creating a 'nanny state'. Barack Obama is never going to push your trolley in the supermarket and see whether you are buying too much food that will probably be wasted. Gordon Brown is not going to check whether you catch the bus and leave the car in the garage occasionally. Even Tony Brown isn't going to come round and check whether you've got enough insulation in your loft. When it comes to making many of the necessary changes to deal with climate change we're on our own. So don't expect John Shimmin to knock on your door and see why you're not recycling more.

I have always been intrigued by the fact that most people know what they should be doing to counteract climate change but just don't get round to doing it. We've read endless articles about reducing waste and saving energy.

OK we know there are major decisions that have to be made about developing alternative energy and weaning ourselves off oil. But many of the smaller steps like growing some of your own food and making sure you're not wasting energy can be taken without instructions from the Isle of Man government and international agreements at Copenhagen.

I have just read a book *The Power of Sustainable Thinking* by Bob Doppelt and it explains the process that people go through as they change their behaviour, but more importantly their attitudes. Much of the book is devoted to analysing why people don't change but keep repeating the same harmful patterns of behaviour. Doppelt reckons people who resist change simply do not feel a sufficient amount of tension between their current state and an alternative desired condition. Maybe we do need the price of petrol to double!

Psychologists know it isn't easy to change people's core beliefs. Criticism, reward and punishment are superficial motivators but to get people to change radically is a long and complicated process.

The author outlines a 5 stage approach to change which takes us from 1 Disinterest 'I won't change' to 2 Deliberation 'I might change' via 3 Design 'I will change' to 4 Doing 'I am changing' and finally to stage 5 Defending 'I have changed' and will defend my new approach in the face of resistance from others.

The key to successfully altering your own thinking and behaviour regarding climate change, natural environment and social-wellbeing is to know which stage of change you are in and then to use appropriate change mechanism with each stage. But until you have been through this process yourself you can't appreciate how difficult it is and start helping other people to change.



*Is Transition the way forward?*

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### Latest News:

- For details of FoE's ongoing 10:10 email campaign visit [www.FoE.org.im](http://www.FoE.org.im)
- Manx Energy Expo is to be held this year at the IOM College in March. See press and groups' websites for more details nearer the time

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## Sustainable electricity - Battery or Grid Tie?



*Will your wind turbine enable you to cut the tie to the MEA?*

So you have just put up your wind turbine, or installed your hydro system, or covered your roof in photovoltaic panels, or even gone down the road of bio-energy, CHP (combined heat and power), osmotic power or even ocean power in one of its forms. However you have generated your sustainable source of electricity you now need to decide what to do with it.

Electricity cannot be stored, at least not as electricity. So the first choice is whether to store excess generation or use it all immediately its generated, perhaps as water or space heating. If you decide to store the excess generation then your options are fairly limited at present (unless you have a relatively unlimited budget). It really comes down to storing as chemical energy in a battery or using the MEA grid (known as a grid tie system) where the generated power is used immediately via the grid then recovered by you at a later time (a sort of time shift in the use of the electricity).

As with all decisions there are pros and cons to both method of storing the electricity. Lets consider batteries first.

These will need to be of the deep cycle variety (not car or lorry start batteries that are not designed for deep regular discharge cycles). The capacity of the batteries will need to be relatively large generally and will generally be based on a lead acid chemistry (mainly due to the cost of purchase). Also driven by cost, they are likely to be of the flooded or wet variety as these are around half the cost of sealed lead acid batteries.

Now, lets look at the grid tie option. The first thing to say is yes it can and is done on the IOM. The MEA have a special tariff called home generation, and this allows a household (but not presently a business or farm) to connect there own electricity generation directly to the grid, subject to some safety related rules. These rules, put simply mean the MEA have to authorise the grid connection and the equipment used to make the connection must be approved to a relevant safety standard (typically for most installations this will be known as G83). The final arrangement however is very easy to use for a consumer, as it is fully automatic, and needs no special conditions to be followed in its use.

So what are the pros and cons of these methods?

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### Flooded Lead Acid battery

Pros	Stand alone, system is independent of the MEA grid.
	System can be ac (like mains) or dc (like car battery) or both.
	There is no requirement to be connected to the MEA grid.
Cons	If you still use the MEA grid then you need two separate distribution systems.
	Capital cost, a battery for a small off grid house will cost around £5000.
	Regular maintenance required (topping up with distilled water etc).
	Life, a battery has a limited lifetime (which can be up to 15 years).

### Grid Tie

Pros	Simple system to operate, all power used via normal mains supply
	No storage system to maintain or provide space for.
Cons	If the mains has failed you cannot use your renewable energy (Safety issue)
	Annual standing charge for the net meter facility, which could (will?) go up.

## Morsbag progress report

**Thank you** for being part of something which encourages giving – all year round.

Morsbags Central want to say hello and a huge thank you to all you fabulous morsbaggers out there who have been busily converting curtains, transforming tea-towels, stitching Skopos and liberating landfill/incinerator fabric into over **22,000** morsbags in **2009**. WOW!

### Highlights include:

Over **500** new pods joining in from all around the world – special welcome to recent new pods in Italy, Germany, Saudi Arabia, Singapore and Austria.

A jam-packed year of morsbagging events: county fairs, concerts, market stalls, food fairs, charity shops, eco-fairs, transition towns, radio and newspaper interviews, Knitting and Stitching shows – thank you to everyone for organising these and doing them in all your own special, highly valuable, ways. Local is great, great, great!

Collaboration with the **Marine Conservation Society** who do wonderful things on a daily basis:  
<http://www.mcsuk.org>

A star morsbagger managed to get a spot on the **Fourth Plinth** in Trafalgar Square, London, to sew morsbags on a handcrank machine and throw them into the crowd below, despite her fear of heights!  
<http://www.oneandother.co.uk/participants/Sazzie>

An Italian pod who has helped get the morsbags message into full swing:  
<http://www.youtube.com/watch?v=5vNXxLDpzZs>

There are **12** pods who have made over **1000** morsbags and a pod of Young Offenders are in the top spot, having made over **3000** morsbags. Arriba! However, to all the pods who've made a single bag – every morsbag makes a difference. Well done everyone!

New, gorgeous, great quality and totally ethical dark blue **morsbags t-shirts**. They've proved highly popular although we still have plenty left in stock, so please feel free to order for all your morsbagging needs next year!  
<http://www.morsbags.com/stuff/stuff.html>



*Lets make 2010 the year of the Morsbag*

## Sustainable Electricity - continued

Notes:

1. See Green Centre newsletter vol1 issue 2 for net metering details.

From time to time MEAC recover sealed lead acid batteries from industrial users. These will be likely to have a further useful life (up to 5 year) and MEAC will supply these batteries free of charge to sustainable generating systems. Contact us via the Green Centre for more details.

### Feed In Tariff

In April this year the UK will move to a system of feed-in tariffs whereby anyone generating electricity on a small scale will be able to gain a payment at a fixed known level for each unit (kilowatt hour) generated. The payment varies from one technology to another to take into account the capital cost of the different methods of generation.

Feed-in tariffs will replace ROC's (renewable obligation certificates) for small systems, and will allow some of the unknowns in the economics of micro generation to be eliminated. This will (and is designed to) encourage a greater take up of micro generation. The method has been in use (and proved successful at encouraging the take up of renewables) throughout most of Europe for some years now, and has allowed Germany, Spain etc. to be much less reliant on fossil fuels.

The feed-in system will not apply on the IOM. Now there's a surprise.

*Article supplied by George Fincher MEAC*

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## The Green Centre Yn Laare Ghlass

### *The Green Centre*

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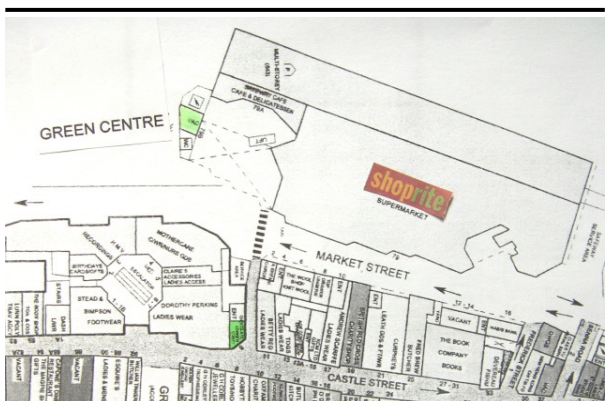
*www.meac.iofm.net*

*www.foe.org.im*

Opening Hours: Saturdays 10.00 am - 2.00 pm

(Although often open till 4.00 pm)

*Campaigning for the Island's environment*



## *Morsbags update - continued*

We receive emails every day from people of all different ages and outlooks who enthuse, question and inspire us – so thank you to everyone who's been spreading the word in an effort to tackle the pointless plastic bag problem from a different angle. In a grass-roots and stirringly powerful way, cloth bags are winning, we just need to keep giving free bags to people, keep sewing and keep explaining why taking time to remember to take a morsbag to the shops can help the ocean and its inhabitants.

Sorry we haven't been able to mention everyone who have been morsbagging supremos this year – please check out the forum to see loads of other local happenings and heros:

<http://www.morsbags.com/phpBB2/index.php>

Let's make 2010 the year that we crash through the **100,000** morsbags made barrier... the tally today stands at nearly **57,000** morsbags made and given away for free, potentially replacing over **28 million** plastic bags. Massive well done to everyone for all their effort and blunt needles. You're really making a difference. **THANK YOU SO MUCH.**

Pol & Joby

## *Do it yourself - continued*

Evaluating which stage you are at is relatively easy with the author's 4 questions on each topic.

1 Have you taken some steps that will protect the climate, natural environment and social well being in the last 6 months?

2 Do you intend to take action next month?

3 Do you intend to take action in the next 6 months?

4 Have you been actively involved with actions for more than 6 months?

No to all 4 shows Disinterest. Yes to 3 only shows Deliberation. Yes to 2 and 3 indicates the Design stage. Yes to 1 and no to 2 shows you are in the Doing stage and if you can honestly answer yes to statement 4 you are in the Defending stage.

The book goes on to show in detail how we can transform our personal thinking and behaviour. In the end we have to change our own behaviour and we don't need the guys in Copenhagen or London or even Douglas to spell out what we can all do to cope with climate change and reduce our reliance on fossil fuels. We all need to do some DIY on ourselves.

Let that be your new year's resolution.

The Power of Sustainable Thinking by Bob Doppelt published by Earthscan ISBN 978-1-84407-595-9 [www.earthscan.co.uk](http://www.earthscan.co.uk)

## *FoE visit Douglas Corpy composting plant*

Following on from the Master Composter course in Laxey a few hardy & budding composters took a guided tour around Balloughton Nurseries on what seemed like the wettest day of the year: breaks had to be taken between talks to shelter in the huts.



been recorded.

We were shown the big shredder used to break down branches even as thick as your arm, and he explained how the windrows had to be turned until the microbes had finished breaking the vegetation down into a useful end product suitable for potting and mulching.

Composting was a big money saver for the Corpy instead of importing/paying for it.

The small group even got a tour around the greenhouses and got to view some exotic plants including 'Manx' bananas!

Hopefully we'll return later this year in better weather.

*Report by Phil Corlett IOM FoE*