

# Green Centre News

## *Manx Energy Expo- by Phil Corlett IOM FOE*

The weekend of Friday 19<sup>th</sup> & Saturday 20<sup>th</sup> March saw a new venue for the Energy Expo' this year - with the IoM College hosting it; and as it turned out very successfully too!

IoM FoE, ZWM and the Manx Energy Advice Centre all had stands there with different themes.

**IoM FoE** had a colourful stand with their boards displaying posters on good and 'disappointing' facts on where the IoM is on environmental issues. The new postcard campaign to promote easier and better returns on microgeneration was started for the public to sign (see page 3), enthusiastically assisted by the very smartly attired Ian (we estimate 200 signed over the 2 days) and they were worded so well that other companies asked to have them displayed & signed on their stalls as well. FoE leaflets on producing your own energy and saving it were available for people to take with titles like 'Renewables, Windpower, How can we have a safe climate'? A wide display of the factsheets is always on show at the Green Centre for anybody to take for education etc. View the full range here - [www.foe.co.uk/resource/factsheets/](http://www.foe.co.uk/resource/factsheets/)



*All work and no play makes  
Phil a dull boy*

**ZWM** continued with their highly successful Morsbags campaign and Muriel & Hilary did great work over the 2 days making cloth bags on their vintage hand powered Singer sewing machines which went down well with the many school children who attended.

<http://www.morsbags.com/> - Mannin pod now at 850 bags!

**MEAC** ably manned by George and Chris were inundated by questions about best forms of insulation; solar heating types and prices, pitfalls of applying for planning permission and an interesting one on possible hydropower on the NE coast. Water wheels used to be abundant on the Island and helped power our industrial revolution as we didn't have coal. An example of a community hydro scheme in the UK:-

<http://www.settlehydro.org.uk/thescheme.html>

It's worth mentioning here that next door to them was the **Transition IoM** stand with its Energy Descent Plan wall/sheet FULLY filled in with ideas from the public for getting off/out of our dependence on oil - <http://transitiontowns.org/Isle-of-Man/Isle-of-Man>

Opposite to the IoM FoE stand was the Centrica marine windfarm display who were answering all kinds of Q's regarding one of the most abundant forms of renewable power around the B Isles after all it has been proven that we are the windiest place in Europe - <http://www.offshorewind.biz/2010/03/10/isle-of-man-offshore-wind-farm-plans/>



*Would you like to sign my  
petition?*

All in all it was an enjoyable well attended w/e with some interesting stands covering a wide range of energy & **cost saving** appliances/ideas.

Thanks go to Melinda Fargher at the DTI, the college & students for a well organised event.....the Saturday buffet was good too!

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### Latest News:

- Morsbags 'Mannin Pod hits 850 bags!
- Simcocks Trust Co to hold 'Green Day'
- Got something to give away, or want something free - visit [www.freecycle.org](http://www.freecycle.org) and register on Isle Of Man yahoo group and post a message!

## *Which Solar PV panel should you buy?*



*Will your PV panel  
enable you to cut the tie to  
the MEA?*

**There are 3 basic types of construction of PV panels currently available, though all use silicon—the same material used for transistors and integrated circuits**

Firstly PV stands for photovoltaic; that is the type of solar panel that produces electricity. When you consider buying some PV panels you soon see a rather confusing list of different types of PV panel. So what do these different types mean and which should you buy?

There are 3 basic types of construction of PV panels currently available, though all use silicon - the same material used for transistors and integrated circuits.

**Monocrystalline** cells are cut from a single crystal of silicon - they are effectively a slice from a crystal. In appearance, it will have a smooth texture and you will be able to see the thickness of the slice. These are the most efficient and the most expensive to produce. They are also rigid and must be mounted in a rigid frame to protect them.

**Polycrystalline (or Multicrystalline)** cells are effectively a slice cut from a block of silicon, consisting of a large number of crystals. They have a speckled reflective appearance and again you can see the thickness of the slice. These cells are slightly less efficient and slightly less expensive to produce than monocrystalline cells and again need to be mounted in a rigid frame.

**Amorphous** (or thin-film) cells are manufactured by depositing a thin film of amorphous (non crystalline) silicon onto a wide choice of surfaces. These are the least efficient and least expensive to produce of the three types. Due to the amorphous nature of the thin layer, it is flexible, and if manufactured on a flexible surface, the whole solar panel can be flexible.

Monocrystalline solar panels will be the most efficient (and therefore use the smallest area for an equivalent output) but will be the most expensive to buy. Thin film panels will be the cheapest to buy but will need the largest area of panels to get the same output as the Monocrystalline panels. Polycrystalline panels are the middle ground in area used for the equivalent output and cost.

Panels based on other chemistries are under development: Cadmium telluride and copper indium diselenide panels may well appear in production soon. Research is being conducted on using the photosynthesis effect that plants use to convert sunlight to useful forms of energy and on the use of photosensitive dyes that can be screen printed onto a substrate. However, you are unlikely to come across technologies other than silicon for the time being.

*Article provided by George Fincher MEAC*

## *The World's First 'Eco-Island' by Muriel Garland ZWM*

A small island off the coast of England aims to be the world's first eco island. No it's not the Isle of Man unfortunately, but the Isle of Wight, with a population of 142,000 and measuring 23 miles by 13. The island has announced a programme of actions, which could give that island the lowest carbon footprint in England. This will be done by harnessing the maximum amount of energy from renewable sources and by creating some of the most energy efficient housing in Britain.

*Continued on back page*

## *IOM FOE Microgeneration campaign*

Last year Isle of Man Friends of the Earth campaigned successfully for a renewable electricity tariff. The MEA promised to take the campaign message on board and an announcement's expected in summer 2010. This year IoM FoE are campaigning on microgeneration.

Microgeneration's is great because it's a straight forward way for ordinary people to radically cut their CO2 emissions and reduce their impact on climate change. In addition, it reduces pressure on the grid, and makes people more aware of their energy consumption.

Most microgenerators are just normal folk. But schools, farms, churches, & clubs could also generate their own electricity. To do this they would use small scale wind turbines, solar panels, waterwheels, biomass, geothermal devices or other equipment.

While this sounds good, there are two problems. First, imagine you have a small

wind turbine. The wind blows at night even though you're asleep - so what do you do with the surplus electricity? Selling excess power to the grid helps create extra electricity for the Island - it also helps pay for the turbine. But to make microgeneration affordable the grid needs to pay a fair price for the excess electricity they buy. *In the UK excess energy can be sold to the grid for around 30p/kWh. Here the MEA pays just 4p/kWh.*

Secondly, other potential microgenerators are put off because of the time it takes to get planning permission. As part of DLGE's planning changes IoM FoE hope microgeneration devices will become 'permitted developments', so that more people will consider generating their own electricity.

For more information, and to register your support for the campaign, please visit <http://www.foe.org.im> and follow the links. You'll also find a whole raft of other useful info, links and tips on the IoM FoE site.



*Make sure you obtain a postcard, sign it and send it in!*

## *Thie Slieau Whallian government's first 'green' HQ*

Placing a new boiler 185 metres away from the building it's heating is not logical.

That's what I thought before visiting Thie Slieau Whallian, the new headquarters of The Department of Agriculture, Fisheries and Forestry (now part of Dept. Environment, Food & Agriculture) in St Johns.

The biomass boiler is sited some distance away at the Saw Mill and not only heats the impressive HQ but also the mill buildings and existing Forestry Division offices. The fuel, wood chips, is created on site from the waste products of the mill; thus reducing 'fuel miles'.

As the interconnecting heating pipes were already in place it was sensible to use them for the upgraded heating system, especially as it has proved possible to limit the heat loss of the hot water flow to only half a degree over the whole distance.

It is indeed impressive to see a locally grown carbon neutral fuel being created from off-cuts and burned in a modern highly efficient, computer controlled biomass boiler.

The building, designed by Ashley Petit Architects, is in itself an impressive and imposing building, with a large use of wood and glass to give a bright and airy feel to the offices. It's a shame though the wood used in construction had to be imported; but nevertheless it is probably a far more sustainable building than nearly all other government buildings. Let's hope it is a mark of things to come.

Article by Roger Tomlinson



**The fuel for the boiler, wood chips, is created on site from the waste products of the mill; thus reducing 'fuel miles'**

**Not only does it power the HQ but also the Saw Mill and existing offices**

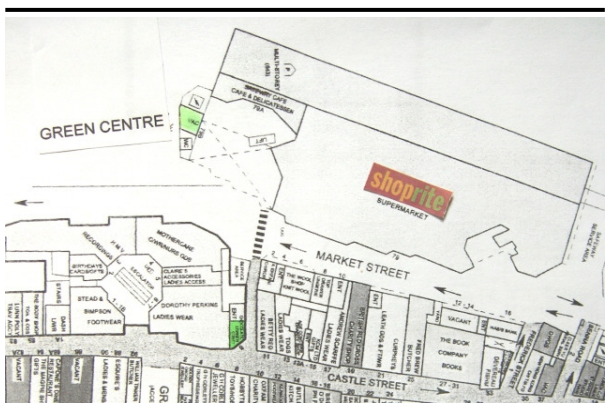
## The Green Centre Yn Laare Ghlass

*The Green Centre*  
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Tel: 666029  
Email: greencentre@manx.net

www.zerowastemann.org  
www.meac.iofm.net  
www.foe.org.im

Opening Hours: Saturdays 10.00 am - 2.00 pm  
(Although generally open for longer)

*Campaigning for the Island's environment*



### *The World's First 'Eco-Island' continued*

The motivation for this initiative came from public opinion. The Island's local council survey revealed a desire by local residents for greater environmental sustainability as well as a need to protect the island's natural surroundings – it's major selling point. Sustainability balances social, economic and environmental factors to create a lifestyle that does not endanger the planet and leaves a good legacy for future generations.

The Island Strategic Partnership ISL made up of the council local health authority, college, police force, prisons, voluntary and community organisations, members of the business sector and from various government departments responded to the survey by creating an ambitious vision for change on the island. They want the Isle of Wight to become a world-renowned Eco Island. Now they are looking for the support of every island resident and organisation to make the dream become a reality by 2020.

The ISP has been working with architect Sir Terry Farrell and the University of Southampton to turn the theoretical ideas into practical plans. Money has been set aside to enable householders to insulate their homes 800 houses will be built to level 4 of the Code for Sustainable homes with solar panels and rain water harvesting.

World sailing record holder Dame Ellen McArthur, who is now based in the Isle of Wight, has agreed to be figurehead of the ambitious Eco Island project.

More details can be found on the website:

[www.eco-island.org.uk](http://www.eco-island.org.uk)

## *Loft insulation - by George Fincher MEAC*

Is your loft insulated, and if so what thickness of insulation do you have?

Most people now understand that there should be insulation fitted to a loft area. It is a lot less well known how much insulation there should be in the loft.

The latest building regulations require a depth of 240mm of rockwool – that's a foot in old money. MEAC's view is always have a bit more rather than a bit less.

But my house was only recently build so it must have the correct amount of insulation in the loft. Sorry but that may not be the case. Due to a (stupid) limitation of the building regulations, if a builder installs a high efficiency boiler then the insulation standard is allowed to be relaxed (i.e. reduced), and guess what some of the largest builders on the Island have used this loophole to reduce the loft insulation depth.

So bottom line. You pay the bills so make sure the loft insulation is at least 240mm of rockwool. The alternative is to keep paying for more heating fuel every year.

## *It's your choice by Muriel Garland ZWM*

'Choose to Refuse' is the slogan of our on-going campaign against plastic bags. We're not going to nag people into changing their behaviour. We just hope you'll see the sense of the arguments and join in.

There was a time when anybody going shopping would automatically take a bag with them. But since the 1980's we've all got used to accepting single use plastic bags for every item that we buy. Now these free plastic bags have become a menace. But luckily they are one form of waste that can be easily avoided.

We just need have a re-usable bag and remember to take it when we go to the shops. I admit I've been caught out knowing that my bags are in the boot of the car or at home in the porch. But after a while it becomes



second nature to carry a shopping bag or tuck a cloth one in your handbag.

I try to avoid plastic bags because they are unnecessary. They are made from oil, which is a finite resource. And they cause litter around the place.

Some towns like Modbury have gone plastic bag free and several places like Ireland now charge for bags with the money going to environmental projects. The motivation is usually the same- to avoid waste, to prevent litter in the countryside and to safeguard wildlife.

Success in these campaigns depends on shoppers taking their own bags and shopkeepers not offering plastic bags. Some people say that in the big scheme of things a few plastic bags don't make a difference and that on the IoM they don't end up in landfill because they go to the incinerator to be burned. Well, that may be true but even if we each accept only one plastic bag a week that adds up to several million bags during a year.

We haven't been able to find out how many plastic bags are imported to the island every year but whatever the figure it represents a lot of waste that could be easily prevented. Lots of shops offer alternative bags now.

Supporting this campaign is simple. Just '**Choose to Refuse**'. If you're going shopping take a bag and refuse all offers of plastic bags. And if you're a shopkeeper don't hand out plastic bags. You'll save yourself some money too.

So the race is on. Let's see which town or village on the island is the first to go 'plastic bag free'.

[www.plasticbagfree.com](http://www.plasticbagfree.com)/[www.abolishplasticbags.org.uk](http://www.abolishplasticbags.org.uk)

[morsbags.com](http://morsbags.com)