

# bio-power news

Issue 8

November 2003



*October has been a very exciting month for us. Just before the weekend of our October Introductory Seminar I received an unexpected e-mail with news that Bio-power has been selected for the Euro-Solar Award for our outstanding contribution to the promotion and development of renewable energy in the UK. I went up (down?) to Olympia to receive the prize on 22<sup>nd</sup> October with Mark Hunter from the London Bio-power Group.*

*Thanks to all those who returned the questionnaire on the October issue of BPN. In case you forgot to send it in (that's about 90% of you!) then please fill in the form that is attached to this issue. A booking form is being sent to people eligible to attend the Bio-power Fuel Makers Conference to be held on the weekend of 21, 22, 23 November.*

## Bio-power receives First Prize at Olympia

Yes it is true! We won the first prize for 'our outstanding service to the development and furthering of renewable energy in the UK'. The award was presented by Eco-Solar. At first I did not realise what was meant by 'Eco-Solar'. I imagined they were a plastic glazing company that were trying to get in to solar panels. It was only at the show in London that Jackie carpenter of Energy 21 explained that Eco-Solar is a European organisation to help and support the development of all kinds of renewable energy – not just solar panels. In Germany the word 'Solar' is used in the same way that we would say 'renewable energy'. There were some very impressive projects displayed and some that I hope we will make contact with when it comes to running our energy convention next year.

Who would have believed this would happen before the anniversary of our first Seminar in November last year? I feel this has very much put Bio-power on the map as an organisation that has a valid contribution to make in the field of renewable energy. But it s no good us sitting back and expecting things to happen on their own. There is an enormous amount of work to be done, and I do notice that there is now a small but very active team of people who contact me constantly, and a larger group I rarely hear any news from. Please bear in mind that networking is essential to achieving our aims.

For me, the award ceremony and the exhibition as a whole was the most welcome energy renewing process. I must admit that my own batteries are very low at present often being in hospital two days a week. Also I often feel so isolated being out here in North Wales, and there are few people I can talk to who share our fundamental philosophy and commitment to better ways of working. It was so wonderful for me to come to London and meet so many activists and campaigners for the same cause. Jackie Carpenter and her team from Energy 21, and Jane Taylor and her colleagues from Positive News. Thanks also to Mark Hunter who looked after me so well during the three day event.

I understand that we now can take part in the European Solar competition that will be held very soon. There may not be any big 'prize' in terms of money, but the accreditation that this award gives us can help enormously in getting the funding we deserve from local business development organisations.

Some important lessons were also learnt. Mark Hunter and John Walker helped to put together an excellent short press release, but we did not have any pictures. Thanks to Jonathan & Dolly for providing some pictures at very short notice of their pristine Bio-power plant at Plymouth. It is helpful if members can send us pictures of their plant and of themselves so we have plenty of material that can be used for press and media opportunities. We also have struggled to get cover for this event in the media because we did not have a briefed press agent and plenty of pictures, or even a place where we can have TV film taken. *JN*



## Renewable energy project lands top award

A NORTH Wales business was among the winners in the Euro Solar Awards announced in London earlier this week.

The award for Bio-power, based in Rhostryfan near Caernarfon, is for outstanding service in the promotion of renewable energy by sustainable means.

Bio-power is a not-for-profit organisation set up ten months

ago by John Nicholson to foster and develop a network of locally based bio-fuel companies, each of which is able to collect available bio-fuel stock like chip-fat and waste cooking oils, and convert it for sale as a bio-fuel or as energy to meet local needs.

The nationwide project is run from North Wales, and has grown to a membership of over

550 active supporters in 10 months.

Bio-power is both the name of the product, - a bio-fuel that can be used instead of fossil diesel, and it is also the name of the remarkable business network.

The award is in recognition of the innovation and vision in promoting such a novel way of working to address the real

issues of global warming and climate change.

Mr Nicholson said: "Even though this project was originated in North Wales, it has not been able to get any form of financial support from the WDA, Gwynedd Council, or local business support agencies in Wales."

"Yet Bio-power members in other parts of the UK have

been able to get support from their local enterprise agencies in England, Ireland and Scotland.

"Bio-power is also running projects in over 12 overseas countries, and have orders for fuel and the use of technology from many overseas countries.

Why is it that Wales seems to miss the boat on the development of new technology?"

### Roughly what we said to the meeting and to the press...

It is a great honour for us to receive the Eco-Solar Award for our work in the promotion of renewable energy in the UK. The first seminar I ran in Llanberis North Wales was at the end of November last year. It was a very informal gathering of the many people who at that time were all trying to meet me to learn about the novel bio-fuel process we had developed. I had no idea then that this would become such a regular form of event, and I still have not had the time to draft out proper seminar notes or any visual material – it remains very much a personal presentation, tailored for the needs to those who attend. It seems to work well that way.

It is through the experience gained in these seminars that the concept of the Bio-power Network has emerged. It is this very different way of working that has brought so many skilled and experienced people together to share their knowledge and resources in pursuance of our shared aim, which is basically 'to provide realistic alternative bio-fuels to fossil fuels'. The pictures show how Jonathan Stromberg and Dolly Knight have built a simple but effective bio-power plant – complete with a fuel dispensing pump – alongside their existing engineering works near Plymouth. They now are able to provide fuel to the area along the South Devon coast. They are one of many groups of people who have been inspired by the Bio-power vision, and they have now turned that vision into a reality. They are not alone. There are about 200 people who have been on the Seminars and who are setting up similar bio-fuel processing plant to collect potential renewable energy stock, and make it available as a fuel to meet their local needs.

The bottom line is that we all are or will be affected by Global Warming – it is not something we can escape from. It is no good replacing a few light bulbs, or buying a different form of washing up detergent, with a belief that we can thereby save the world. The scale of the disaster that we are heading towards rapidly is on such a vast scale that it makes the destruction caused by the two world wars seem insignificant. We all must make dramatic changes in our lifestyles.

If we agree in the need to take personal action over this issue, and can agree and support shared aims, then we can work together, creatively, collaboratively and without competition or obstruction. This is very much the opposite gesture in business to that which otherwise leads to a small number of very large competitive and wasteful multi-national companies. It is very much the multi-nationals that are responsible for getting us all into this Global Warming mess in the first place. It is their strategy to create public dependency upon their products. They are also able to justify their irresponsible and wasteful methods by saying that it is necessary to maintain the support of their shareholders. The fact that they can make money out of us all takes no account of the untold suffering that is being caused now and in the future by their squandering of the earth's resources. Yet without any real alternatives we are actually supporting and endorsing these companies every time we buy fuel, shop at Asdas or Tescos or buy anything that is made or provided through a multi-national company.

Bio-power works the opposite way. We are large number of relatively small locally based and locally accountable businesses that operate as a co-operative network. We are managed and served by a not-for-profit hub that the members themselves also own. It means we cannot be taken over or traded. We are not open to speculative investment. Anyone affected by a decision made on the operation of the network is included in and can be part of that decision making process. We believe that it is essential that better ways of working in business are developed if we are to overcome the form of careless and power seeking logic that otherwise prevails in most other businesses. We hope that the emergence of Bio-power will be a step in the right direction, and one that other organisations may come to follow.

Bio-power is not just about making fuels for our cars and lorries from vegetable oil. That is just the simple beginning. Bio-power is about implementing any form of renewable energy. This means that we are looking at all kinds of non-fossil fuel stocks that could be used to create energy as heat or electricity or as transport fuels. We are currently looking at a number of other fuel sources like tyres and wood waste, which if combined with waste fats could provide us with a very useful income stream. We are also looking at the importation of various organic materials which could be used as natural solvents to our Modified Waste Vegetable Fat fuels. This could help people overseas to derive an income from what very often is for them a waste product.

We are also looking at better ways of using engines, especially petrol engines. It may take a long time before the British government opens up the opportunities for the economic use of Ethanol as a bio-petrol. It may also be that they will keep the tax break so narrow that only the largest and grant supported companies will be able to break into this market. We feel that there are better ways of working with bio-fuels in petrol engines, but this will involve a simple conversion in a similar way to LPG conversion. The effect of this could be to enable a bio-fuel in the form of a gas and a fat to be used together. Our first experiments suggest that this could be quite a spritely fuel and would do a lot to overcome the attitude that bio-fuels are only for people that wear sandals.

So far we have not had any government assistance or support for our work in the development of the Bio-power technique, or the development of the Bio-power Network, despite many applications for help. It seems that all the agencies have every reason why our form of project does not come within their remit, and we go round and round in circles getting no where and wasting a great deal of time. I very much hope that this award will now mean that the importance of our work is recognised by those in political power and we will be assisted in getting the levels of financial support that is needed to move on to the next stage in the commercial development of our project. *JN*

## **Power failures can tell us a distorted story**

Suddenly it seems there are power failures every where. The effects can be dramatic with large areas without any form of power. It started in America, and then Sweden and London and more recently in Italy. Reports in the media blame a poorly designed or maintained grid network, inadequate equipment, that can't cope when the system is put under strain, and inevitably the blame is 'under investment'. This is the best cop out ever. It puts the blame upon the lack of investment – in other words on us, the general public for under investing in our electricity supply network. But why you may ask are the electricity suppliers not creating more electricity? The answer is because the price being paid for our electricity is so low it is hardly profitable. Yes, it means we are getting our electricity so cheap that its hardly worth generating it. We weep a tear for the likes of Powergen and megawattever, who are working so hard to maintain our electricity supply despite the inadequate power grid system we have dumped upon them.

So where is the truth in all this? The fact is that the whole concept of electricity supply needs to change from huge power stations transmitting power through high voltage lines to consumers many miles away, resulting in enormous energy losses through resistance. Instead we need many small local generating sets, meeting the local need for energy at lower voltages. The power network then does not need to carry such heavy loads which when things go wrong can cause enormous power surges. Such a network using a higher amount of 'embedded generation capacity' is far more reliable and stable. If there is a failure, then the effect is likely to be moderate and local. Most importantly with many small local power generators it is easy to restore power quickly.

The impression we are given that it is not profitable to generate electricity is only true if you look at one sector of the industry, the dying sector. The sector that must be replaced if we all are to survive in the long term. It is only the generation of electricity from environmentally polluting fossil fuels that is becoming unprofitable. The profits from generating from renewable fuels or from natural energy sources is going up all the time. Clean energy is an expanding and thriving business. Surely this is good news?. It is also a market opportunity for us in Bio-power.

So don't believe what you hear in the media, it is only half the truth. If you are sick with a potentially fatal illness then you don't weep over the death of the virus that was about to kill you. So we don't need to weep over the death of the out-of-date ailing and polluting power systems, that have to be replaced by much better community owned embedded power suppliers. We all need to support the development of bio-energy to meet our electricity needs, and it can probably provide us with local heat as well.

The reason given for the blackout in Italy is that most of the power comes from outside Italy. Bio-power is now discussing three projects in which companies can meet their own power requirements from the use of bio-fuel stock that is collected from their local area or even from their own waste materials. This is a very rapidly growing sector for us, and I would like to get a team of people to work specifically on the marketing potential created by the Climate Change Levy. This means helping customers to derive energy from their own waste materials, like saw dust, scrap timber, whey, abattoir fat, bone meal, and tyres. Please let me know if you wish to join the Climate Change Levy working group, or the Power Generation working group. *JN*

## Fuel protestors are out again

You may have heard about new fuel protest lobbies. In some ways it is rather like the news on power generation. The question is put 'do we pay too much for our road fuel?' The answer 99% of people will say is a resounding 'YES!' But is that a fair question or a relevant answer? The problem is with the use of fossil fuels, and the fact that for by far the majority of people in the UK there is no alternative. Bio-power exists to create a range of bio-fuel fuels as an alternative to fossil fuels, but we have a very long way still to go. On the basis of 'The Polluter Pays', the cost of fossil fuel should reflect the environmental damage done, and the threat of Climate Change, Global Warming and sea level increases that are attributed to the use of fossil fuels. On this basis the tax on the use of fossil fuels would be so high that they could hardly be used. The tax on bio-fuels would be minimal. So what we need is a method of taxation that encourages and facilitates a swing from the use of fossil fuels towards the use of bio-fuels.

It is important to look at this in a broader context. There is a very high tax on cigarettes, because it is considered both for health reasons and socially that tobacco smoking is a bad thing. However, there are no demonstrations of people demanding a reduction of tax on smoking because it is generally accepted that smoking is a habit that should be curbed. We need to promote the view that it is the use of fossil fuels which must be curbed, and we must show that there are better alternatives. JN

## The European Parliament sets stricter limits for non-road mobile machinery

EU governments and the European parliament have now reached outline agreement on new emissions standards for diesel engines in heavy machinery, trains and inland waterway vessels under a directive on non-road mobile machinery. The compromise requires formal ratification by both sides. The deal follows talks between the council of ministers and parliamentary rapporteur Bernd Lange. Both sides had already agreed that a first round of tighter standards should be implemented around 2006.

Under the deal, first-wave cuts - called IIIA - will see new limits on carbon monoxide (CO), hydrocarbons (HC), NOx and particulates (PT) from all vehicles. These will enter force between 2005 and 2008 depending on engine category. A second stage - IIIB - will be introduced from 2010 to engines in all vehicles except waterway vessels. All engines except those in rail vehicles and waterway vessels will be subject to even stricter "stage IV" emission limits from 2013.

These are in line with standards emerging in proposals from the US environmental protection agency and were supported by industry bodies looking for global harmonisation of standards. The figures are 3.5-5 grams per kilowatt-hour (g/kWh) for CO, 0.19 g/kWh for HC, 0.4 g/kWh for NOx and 0.025 g/kWh for PT. The new legislation was proposed by the European Commission late last year to revise a 1997 directive.

### COMMENT:

*This Directive opens up a number of attractive marketing opportunities for Biodiesel in various market segments: Imagine all Diesel-driven forestry machinery, mostly working hard in drinking water protection areas; - count the entire skiing slope cats preparing the snow for downhill racing, (there are over 2.000 of these heavy machinery in Austria burning 18.000 t of Diesel each year); - target all commercial and pleasure boats on rivers, canals and lakes (Biodiesel is already used on Lake Constance and the Norfolk Broads); - all tractors, combines and irrigation pumps, which should produce food for human beings in the safest possible way, - etc.; - add all together and you will end up with approx. 2 % of total diesel consumption, enough to fulfil the 2 % market share as demanded by the new Directive for the Promotion of Biofuels by 2005. This new legislation clearly shows us how European thinking is developing. It is very similar to the way we have proposed a scheme for the withdrawal of taxation on the use of bio-fuels on the basis of use, where environmental benefits, then social benefits and then economic benefits are prioritised.*

## Others are arguing for tax relief on the making of bio-fuels.

Pressure on the Government to promote the use and development of bio-fuels will be sharply increased at Westminster, when a senior Norfolk MP accuses it of failing to put a proper strategy in place.

Tory former Cabinet minister Gillian Shephard will use a Commons adjournment debate to ask ministers whether they are really taking the issue seriously. "There is no individual minister in charge and no lead department," she said yesterday. "The Treasury sometimes appears to be in front, but five departments have responsibilities for various aspects of this policy and there is no Government strategy." Mrs Shephard, the SW Norfolk MP, is pushing the Government to announce in the Pre-Budget Report – expected next month – that it will go further than the decision, confirmed in the April Budget, to remove duty on bioethanol by 20p per litre at the start of 2005. Experts have been emphasising that an additional cut of at least 6p per litre will be needed to make biofuels competitive. At the end of the Commons debate on the Budget, Treasury Chief Secretary Paul Boateng told Mrs Shephard that with the 20p cut the Government had "begun the process of recognising what alternative fuels can produce for the agricultural economy and the environment generally". But six months on, she is very concerned

the Government has made little progress even though the promotion of bio-fuels fits in with its environmental obligations and targets and its rural strategy.

Having set up a Norfolk pressure group – including the county's eight MPs, the Royal Norfolk Agricultural Association, the National Farmers' Union, British Sugar and the University of East Anglia – she has been pursuing the issue through the Commons Select Committee on the Environment. In a further push, she plans to get an all-party delegation to meet ministers, and has asked Education Secretary and Norwich MP Charles Clarke to help organise it.

*Source: Eastern Daily Press*

## **EU ENERGY TAX DIRECTIVE ADOPTED**

### **But European Parliament's suggestions not accepted**

A landmark EU directive setting minimum tax rates for all energy products is set to enter force on 1 January after being rubber stamped by environment ministers on Monday. The European Commission welcomed the development as "a major step forward". German environment minister Jürgen Trittin also saluted what he called "an important step for climate protection". After six years' difficult and often interrupted negotiations, the directive was finally agreed by EU finance ministers in March.

In September the European parliament called for a reduction in the directive's many exemptions that earlier led EU internal market commissioner Frits Bolkestein to compare it to a Gruyere cheese "with too many holes". None of its suggestions has been accepted by EU governments. As a result of the numerous compromises required to win the required unanimous backing from the EU-15 states, the directive will have few near-term consequences for tax levels on most energy products. Even so, its existence greatly strengthens the longer-term potential for upwards harmonisation of EU energy tax rates. In response to the directive's formal approval, the European Commission said it would propose "in the coming weeks" transitional arrangements on how the ten countries due to join the EU next year should comply with the rules.

Follow-up: EU council of ministers <http://www.consilium.eu.int/en/summ.htm>,  
and environment council minutes <http://www.consilium.eu.int/pressData/en/envir/77784.pdf>.

and the reactions from the European Commission

[http://europa.eu.int/rapid/start/cgi/guesten.ksh?p\\_action.gettxt=gt&doc=IP/03/1456|0|RAPID&lg=EN&display=](http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/03/1456|0|RAPID&lg=EN&display=)

## **'Bug batteries' make power**

The next generation of renewable power stations could use the same fuel as the human body, by converting sugars into energy. That's the conclusion of researchers at the University of Massachusetts, Amherst, whose work on remediation of uranium mines has led to the discovery of a bacterium which can generate electricity from sugars. The bacterium, *Rhodospirillum rubrum*, is a sludge-dwelling organism which, the team has found, can oxidise common sugars to carbon dioxide while pumping out electrons.

The team, led by Derek Lovley, noted previous research saying that bacteria from the same family could colonise graphite electrodes and transfer electrons directly to the graphite, without the need for mediators. They put two and two together, and developed a system which produces enough electricity to power low-level applications.

Unfortunately, the kinetics of the system are slow, and as it stands, it isn't suitable for producing mains power. 'Effectively, we're in a similar position to where solar power was 30 years ago,' says Lovley. The team is currently working on electrodes with a larger surface area.

## **Chemicals From Corn & Other Renewable Resources**

Golden, Colo. and Wilmington, Del. — The U.S. Department of Energy's National Renewable Energy Laboratory (NREL) and DuPont today announced a joint research agreement leading toward the development of the world's first integrated "bio-refinery" that uses corn or other renewable resources—rather than traditional petrochemicals—to produce a host of valuable fuels and value-added chemicals. The \$7.7 million Cooperative Research and Development Agreement calls for DuPont and NREL to collaboratively develop, build, and test a bio-refinery pilot process that will make fuels and chemicals from the entire corn plant—including the fibrous material in the stalks, husks, leaves, and the starchy material in the kernels.

The agreement is part of the larger \$38 million DuPont-led consortium known as the Integrated Corn-Based Bioproducts Refinery (ICBR) project. The ICBR project—which includes DuPont, NREL, Diversa Corporation, Michigan State, and Deere & Co.—was awarded \$19 million in matching funds from the Department of Energy last year to design and demonstrate the feasibility and practicality of alternative energy and renewable resource technology. The initiative will develop the world's first fully integrated bio-refinery, which will be capable of producing a range of products from a variety of plant-material feedstocks. Several bio-refineries currently produce a range of products mainly from starch-rich or protein-rich biomass, while other bio-refineries start with a variety of vegetable oils.

"DuPont has a rich history of partnering with governments to enhance the quality of life through science," said DuPont Chief Science and Technology Officer Thomas M. Connelly. "We are pleased the U.S. Department of Energy and NREL support this initiative and recognize that bio-science offers feasible solutions to meet our energy needs while reducing our environmental footprint. The scarcity of non-renewable resources amplifies the need to develop sustainable science-based solutions." "We at NREL are pleased to partner with DuPont in this exciting undertaking," said NREL Director Admiral Richard Trully. "With this project our nation takes a big step toward the day when we can produce many of the transportation fuels and chemical stocks we require from domestically grown corn and energy crops, as well as agricultural and forestry residues."

Operating like a conventional refinery, the ICBR will make use of the entire corn plant. Purified sugars from the corn kernel will be the primary source of value-added chemicals, while the remainder of the corn plant—commonly called "the stover"—will be converted into fuel-grade ethanol and electrical power.

One of those value-added chemicals could be 1,3 propanediol (PDO), the key building block for DuPont\* Sorona®—the company's newest polymer platform—which can be used in applications such as textile apparel, carpeting, and packaging. Through metabolic engineering, DuPont recently developed a fermentation-based process as the basis for the manufacturing of bio-PDO. This process earned the U.S. Environmental Protection Agency's Presidential Green Chemistry award earlier this year.

Michael Pacheco, director of the National Bioenergy Center at NREL, specifically noted DuPont's leadership in biotechnology and project management, and NREL's expertise in biomass pre-treatment enzymatic conversion of the cellulosic components of biomass and fermentation of the resulting complex mix of sugars as key expertise capabilities. New technologies that produce energy from biomass will allow the U.S. to reduce its reliance on foreign sources of fossil fuels, while creating new markets for underutilized grains and crop residues—helping to stimulate the agricultural economy, he said.

"DuPont has a proven ability to take great ideas, work to make them more cost effective, and move them into the marketplace," Pacheco said. "The combined capabilities and years of research expertise of both DuPont and NREL creates what we believe is an ideal partnership."

Doug Kaempf, program manager of the Office of the Biomass Program within the U.S. Department of Energy (DOE), said partnerships between industry and the U.S. government's national laboratories are essential to catalyze the emergence of a bioenergy industry in the United States and reduce the dependence on imported oil.

"The DuPont-led agreement is one of a portfolio of cooperative research agreements that combines the resources of the federal government with those of our industrial partners to develop biomass derived fuels, chemicals, and power," Kaempf said. NREL is a U.S. Department of Energy national laboratory managed by Midwest Research Institute, Battelle and Bechtel. In addition to its work in plant- and waste-derived fuels and chemicals, NREL is DOE's leading center for research into solar power, wind energy, advanced vehicle design, geothermal energy and hydrogen fuel cells.

DuPont is a science company. Founded in 1802, DuPont puts science to work by solving problems and creating solutions that make people's lives better, safer and easier. Operating in more than 70 countries, the company offers a wide range of products and services to markets including agriculture, nutrition, electronics, communications, safety and protection, home and construction, transportation and apparel.

## **Members ask why the Bio-power Introductory Seminars are so expensive? Well, are they?**

Our first seminar held in November 2002 was attended by over 30 people, and officially it ran for one day – but many people stayed over for the Sunday. The fee was £35.00 and it just covered the costs. From my point of view it was an experiment. I did not know how I would cope with so many people at once and with so many questions. But I really enjoyed it, and as you know I laughed so much that I thought my eyes would pop out. The combination of Richard, Jason and Baghit is fatal!

From then on we have gradually increased the costs and increased the length of the seminar but also reduced the number of people attending to much smaller groups of 5 to 10. Eight seems to be the average. When we charge £150 per person, we break even at five attendees, but this does not pay me any fee for the preparation or running of the seminar. Any significant profit is used to supplement the fee for people whom we feel would be unable to attend for genuine reasons. We have had business managers look at our seminar programme and they suggest increasing the fee to between £300 to £500 per person, along with a thorough 'professionalisation' of the presentation. But if that means wearing a suit then count me out.

The charge for the Seminar is not intended as a barrier to anyone. If you are not able to afford the fee, but wish to come on the seminar, and become part of the Bio-power Network, then do let us know beforehand.

It is hoped that by next year we will be able to run the Seminar programme from our own premises alongside our house. There will be a purpose built seminar room, and also the supporting offices and a dining area. It will be possible to see the model bio-fuel making facilities that were used to develop this form of fuel. Also 'bunk-house' accommodation available within the house. Hotel and B&B accommodation is available in the locality.

## What People have said about our Seminars

Thanks for the seminar over the weekend - I was very impressed. *JD*

John, thank you for such a very interesting and good value weekend, it really could not have been set in a better location. *TH*

Thank you very much for presenting the Seminar this weekend. I found it very useful and informative. I now have a much better idea of your aims and the scale of the current Bio-power Operation. I was surprised to find that a weekend was nowhere near long enough to cover all that we needed to discuss and I think we could easily have filled another day. *DH You might! But I am normally pretty dead by the end of two days ! JN*

What a brilliant weekend and an amazing revelation! I wish I had come on the Bio-power Seminar long before I got in such a muddle with the RME method and also with the intricacies of the EA and HMcustoms. I can't wait to get my own MWVF facility running. *BW*

It was a fantastic experience to meet you and all the others who attended the Seminar last week. I really enjoyed it, but also the vast amount of information I received has left me with a very great deal to think about. I will be returning to Ireland very soon, and look forward to getting started with a more commercial project. What luck we never got to heavily into the RME method! *Jl*

Thanks for all your help with the registration. It was a wonderful weekend and great to meet someone with such a broad knowledge of all the issues we need to consider. I expect I will have to get back to you with more questions on the design of the equipment. I very much hope we can get the mobile tanker network operating soon, so we can concentrate upon getting in the fat. *EA*

## ANT and TILLY get wound up about our fuels

If you want an amusing read then look at the following link

<http://biodiesel.infopop.cc/6/ubb.x?a=tpc&s=447609751&f=419605551&m=738607891&r=875606804#875606804>

It shows how people can get the wrong idea and land them selves in so much trouble because they have not attended one of our seminars.



## News from our Members

Dear bio-power colleagues,

I have just spent 5 years in Zambia to set up my own primary health care centre in rural Eastern Province, Zambia. The centre helps about 12,000 people in the surrounding 72 villages in looking for solutions to their day-to day problems and those related to HIV/AIDS. Consequently we help in all kinds of different ways including, taking people to the nearest hospitals, which are 45km away, and unfortunately helping to collect funerals. Our centre does not charge people but in the case of collecting bodies the families have to put in the fuel we use, which is a lot more reasonable than businessmen who would normally get a cow. Fuel is our biggest running cost. We are also situated ideally on the side of a main road, which in Zambia is a dust track with passing places! But this road is continually used by lorries and they could be encouraged to buy any fuel we could make and thereby bring a most useful form of income to our little community.

I was therefore very excited to read of the progress being made by people in using alternatives to fossil fuels. We have land and sunflowers are grown. I am in Manchester for a couple more months and I am asking those, who are knowledgeable to advise me, so I can go back to Zambia and help the centre start production of bio-fuel.

Also you are all welcome to come for your holidays – nearest airport Lilongwe, Malawi. *Hey, What an offer! - JN*

Best wishes Linda Dhammika, Tithandizane PHC Centre, P/B 4 Chipata, Zambia. – 0161-707-9125.

*Linda and her daughter Perry joined us for Seminar 21 held in October JN.*

## Don't forget the UK tax rate change.

The new tax rate is now 27.1 p per litre Excise Duty on material we 'set aside' for use as a fuel from 1<sup>st</sup> October. The effect of this increase in tax is to very slightly put more pressure upon those who are manufacturing RME,

because we have a wider cost margin. The manufacturing costs by our method are less, but this is only relevant if we are making fuel in reasonable quantities to cover the costs.

## **OUR LONG TERM SEMINAR PROGRAMME**

Before getting too involved in setting up to make or sell fuel commercially we recommend people to come on one of our Introductory Seminars which are held every two or three weeks. These events normally take place over a weekend in North Wales. Most events start on a Friday evening, and then the seminar is run over the Saturday and Sunday morning, so people can leave after about 3.30 pm on Sunday. Some events are three days and include a visit to a Fact Factory where fuel is already being made.

The next Introductory Seminar will be held at the Victoria Hotel Llanberis, North Wales, and the dates are as follows...

**Seminar 22** 7, 8, 9 November (still two potential vacancies)  
**Bio-power Fuel Makers conference** 21, 22, 23 November (please return booking forms ASAP)  
**Seminar 23** 5, 6, 7 December  
**Seminar 24** 9, 10, 11 January 2004  
**Special meeting to plan AGM** 23, 24, 25 January 2004  
**Seminar 25** 6, 7, 8 February 2004  
**Seminar 26** 12, 13, 14 March 2004

## **Offer of help for the running of the AGM**

Jackie Carpenter runs Energy21, which is rather like Bio-power in that it is a not-for-profit company that encourages the development of renewable energy projects throughout the UK, but it has an interest in all kinds of renewable energy, not just bio-fuels. Energy 21 has been established longer than we have and are better at running things. They have put on events before, and are familiar with all the arrangements that have to be made. They also know people who can be drawn in to put on events and also speak to us.

Jackie suggested that perhaps Bio-power and Energy 21 could put on a combined Renewable Energy event in the Spring. They could provide the organisational support, and we would provide the venue and ground facilities. Anyway, the detail of how the responsibility for such a venture would be shared is something we can discuss at the meeting scheduled for the weekend of 23,24,25 January. If you have an interest in running any part of the AGM event then please book that weekend to meet. We need not meet in Snowdonia if it would be more convenient to meet in Birmingham or Manchester. Please let me know if you wish to be involved in the running of Bio-power events. *JN*

## **Members Questionnaire**

To help us plan our first AGM event, a questionnaire has been added to this edition of BPN, so that we can better gauge the feeling of the membership. My feeling is that we could do very well to promote 'Bio-power' and gain respect of both the general public and officers and policy makers in our local authorities if we were to invite them to a large and well managed event at which there are professional speakers on the key issues that are fundamental to our stated aims. However, this is only something we can take on if there is support from the membership. Tell us what you think ... Your AGM, should it be a big or a small event?

## **This is your news medium – use it!**

I do not write BPN for my own fun. Please send in material that you would like to be included. Don't worry if it is not written clearly. I can tidy it up if necessary. I do ask for pictures and a personal picture so people can get to know who is who in Bio-power. Please write a story about your own experience in setting up or testing our form of fuel, and stories of building plant or about your customer's response. Use this medium to share information that is not commercially sensitive with others who share our ideals and support us in reaching our aims.

If you are running a Bio-power working group or regional cell then please send me a copy of all minutes of meetings, and a current list of participating members. If possible send me a copy of reports on achievements and events for publication.

## **Please use the information in this publication carefully.**

**Bio-power News** is produced and distributed to the supporters and members of the Bio-power community only, to provide information about our work, news of events and activities. It is not for general release or for publication or disclosure to the press or the public in general. Please regard this publication as confidential to the Bio-power Community and its supporters. *JN*.

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**QUESTIONNAIRE** To help shape the future of the network, please print this page, answer the questions and post it to: Bio-power, Tanrallt, Rhostryfan, Caernarfon, Gwynedd LL54 7NT

Your name : .....

Your address : .....

E-mail address : ..... phone number : .....

Are you a supporter : y / n a paid up subscribing member : y / n

Do you already make MWVF? (tick one)

No ..... I plan to try soon ..... Yes – but so far only for my own use ..... Yes –and I sell it commercially .....

Have you been on one of our seminars? (tick)

Not yet ..... I plan to come soon ..... yes, and I found it very helpful ..... yes, and I found it moderately helpful .....  
yes, but I found it disappointing ..... Any comments . . . .

Are you already involved in any of our working groups? y / n Which ones? .....

We are planning our first gathering and AGM in the Spring or early Summer of 2004. Is this an event you wish to attend? (tick the best description of your situation)

Definitely not coming ..... probably not coming ..... sadly I can't manage at present ..... maybe 'I'll come .....  
I am definitely coming .....

Should our first AGM and gathering be a big or a small event? Would you prefer? (tick one or number preference)

A one day event ..... a weekend event like the seminars ..... a three day event including a public event on Friday .....

What aspect of the AGM / Gathering / Conference is most important to you? (tick one or number your preference)

to meet other members	to hear good speakers	to get more involved with the bio-power network
to attend the AGM	to attend workshops	to help promote our aims and objectives
to enjoy my self	to learn techniques	to get a better picture of what is going on

Do you have children under the age of 16 who would come with you? y / n

If yes please give ages and sex...(eg b 15, g 12, g 8) .....

Please tick the sort of activities you feel your children would most enjoy? Or number in preference 1 highest

Sailing	... ..	visit the Electric Mountain (technical)	... ..	walk in Snowdonia	... ..
swimming	... ..	visit the Slate Museum (Industrial heritage)	... ..	visit to castles	... ..
canoes	... ..	narrow gauge railway train	... ..	children's cooking	... ..
camping	... ..	art and creative crafts workshop	... ..	horse riding	... ..
barbeque	... ..	visit the Beacon climbing centre	... ..	climbing rocks	... ..
dancing	... ..	field sports(like football)	... ..	music workshop	... ..
treasure hunt	... ..	science and technology	... ..	exploring a forest	... ..

(please bear in mind that these activities involve either a cost or workers to arrange them!)

Are you able to offer any personal skills or support for children's activities? (put an 'S' in the right hand space above)

We are considering inviting officers from councils, the Environment Agency, Business Development, environmental NGO groups, funding organisations, and the public to attend on a special conference on bio-energy on the Friday.

Would you be prepared to help fund this through your own conference fee? y / n

Would you be prepared to personally host a delegate? - this means meet them at the conference centre, talk to them, guide them, pay (in advance) for their buffet lunch and maybe maintain contact with them afterwards. y / n

What sort of accommodation would you prefer? (tick one or number in preference)

A good hotel .... a cheap hotel .... B&B ... Camping .... Sleep in car .... I have local accommodation ....

What aspects of bio-power relate to you the most strongly? (tick one or number in order of preference):

The feeling of being part of an active network	... ..	just making your own fuel	... ..
it's an opportunity to change the world for the better	... ..	the benefit to the environment	... ..
it's a better way of working in business	... ..	it's a chance to make money	... ..

We are considering who to invite as conference speakers. (Indicate your order of preference and suggest any others)

The Environment Agency	... ..	Global Warming and Climate Change	... ..	Business practice	... ..
Working with money	... ..	Working with people and networking	... ..	The chemistry of our work	... ..
Power generation	... ..	Small scale generation and CHP	... ..	Taxation	... ..

Others:

Please suggest any speakers you would like us to consider (including yourself) :

Please use the rest of this form (and the reverse) for any ideas, comments or suggestions