

# bio-power news

Issue 3

June 2003

*Again, It's been a hectic month, and this mailing is much later than planned. Do let us have your views on this important response to the government, and also your proposals for our Summer Gathering and AGM.*



## **Our talks with the Government, 15<sup>th</sup> April**

The purpose of this meeting was not to argue the detail of our views on the taxation and future development of bio-fuels, but rather to make personal contact with those who are directly involved with all aspects of government policy on the development and use of bio-fuels in the UK. It was important to us that we are seen for what we are as a very ethically motivated group of committed people with a vision and with a very great deal of enthusiasm. Our aim is not simply to make a financial killing from the exploitation of the bio-fuel market, but to provide the public with a real alternative to fossil fuels.

It was also important that the differences between our method of making MWVF and the conventional method of making RME were made clear and that the overwhelming advantages of our system were explained.

The meeting was convened on an exceptionally bright and clear sunny day, but for most of the time we all stood in the cool and relative darkness of the new Fat Factory in Rochdale. As anyone will know there is not a lot to our process and the room is largely full of large tanks at various levels, pumps and IBCs. The new multi-stage primary separator that has been built by Bryan and Wilf was just ready for use, but was not operating at the time.

Our guests seemed a bit cautious at first, and some comments were made about the somewhat critical nature of our previous correspondence. I got the impression that they now realise that Bio-power is here to stay, and our comments do need to be taken seriously.

It seemed also that they accepted that the taxation system so far devised whilst well intended may not be the final and best solution, however finding the right definition for bio-fuels that is going to be accepted by all parties is not easy thing for people who are not themselves practically involved in the industry. However, they will consider our suggestions for a more suitable definition of bio-fuels or a better way of implementing a tax regime that will encourage a bio-fuels industry in the UK. But, they did also make very clear a number of issues of concern to the government....

1. They very much want to see an economically viable British bio-fuels industry, which will inspire public confidence. They do not want to see lots of back street fuel makers that are difficult to regulate and who may eventually cause a backlash in public opinion because of badly made or unreliable fuels. I am sure we all agree with this!
2. They also do not want to see any reduction in revenue from fuel use because this is an essential income needed to pay for schools, roads, and other public services.
3. They also want to be certain of a reliable standard for bio-fuels nationwide that is easy to apply and comply with.
4. They need it to be very clear when taxed and any untaxed fuel is being used so that any bio-fuel exemption can be closely monitored and regulated.

Our suggestions for a better UK taxation policy for bio-fuels, will be published in the next issue of Bio-power News. Meanwhile if you have any ideas or comments then please let us know as soon as possible. Also, if you wish to read the full report send a separate e-mail with the subject line 'please send taxation report'. JN

## **SVO Vehicle Conversions and the law**

### **The insurance and regulatory issues when running a dual fuel system**

Many people contact us asking about the use of SVO (straight vegetable oil) in their cars. If you fit a second fuel tank etc in your vehicle in the UK then this should be notified to the DVLA as an alteration to the standard vehicle specification. They may well require the vehicle to be re-registered and tested because the vehicle is no longer as specified by the manufacturer. This is a much more demanding test than an ordinary MoT. You will also find that your existing insurance policy is invalid if you do not notify any alterations to the vehicle specification. Things like adding a tow bar, roof rack, softer seats etc are certified by insurers because they do not make any difference to the performance or risks involved in using the vehicle (i.e. all the things you can buy in a normal motorist's shop). But adding a second fuel tank and new fuel lines and heating fuel in a vehicle goes beyond the normal manufacturer's specification which is agreed with insurers. It is illegal to drive a vehicle without a valid insurance policy. To date we have not been able to find any British Insurance company able to provide an insurance for a dual fuel tank system in a car.

Our heat exchanger is not regarded as an alteration to the standard specification because some vehicles have this sort of equipment fitted already as standard - like Peugeot and some Fords. So there are no registration or insurance problems.

### **Using bio-fuels for Domestic Central Heating**

I am getting lots of inquiries from people who wish to replace their use of fossil kerosene with a bio-fuel that will burn in their existing burners. Basically there are two types of central heating burner, the drip feed type and the fan assisted type. We use a drip feed burner which has been fitted into a Franco-Belgie multifuel stove that heats the domestic hot water, runs the central heating and can be used for cooking. It is possible to run this stove on bio-fuel, but it is not a straightforward business. I prefer to use our really rubbish fat as an ancillary fuel to boost the stove at about 3.00 pm just before the children come home from school, and again at about 6.00 pm to heat the whole house up for the evening. I do this using a stainless steel dog dish which just fits on top of the kindler but under the hot plate of the stove. The hinge of the fuel hopper is broken which means I can lift the hot plate slightly and pull it forward to allow additional air to flow over the dog dish. The opening also allows me to pour fat rubbish into the dog dish from above. I position the dog dish so it just glows red hot in the normal flame from the kindler. This is enough to seriously heat the fat, and it ignites once evaporation is started. The draft quickly creates a stormy roaring flame. Pouring a small amount of water on to the hot hinges of the hot plate makes the flame even more furious, and I can get a flame some 15 ft long up the chimney in ideal conditions. This sort of fire is potentially dangerous. I melted a number of things I had left against the chimney to dry out (like washed filters), so beware!

### **We now have a 100% organic fuel recipe**

The MWVF fuel made by most people so far has used partly recycled or synthetic forms of hydrocarbon solvents. We have now made a number of blended fuels which have no fossil derived materials in them at all. They use entirely natural oils and solvents. These materials are very expensive, but so far I have not made any attempt to find cheaper suppliers. I have therefore bought materials from pharmaceutical or essential oils suppliers - some from overseas so no wonder the materials were expensive. But the fuel works brilliantly, and smells very different into the bargain. The next task is to find suitable suppliers of less refined forms of these basic commodities that can be used economically as a fuel stock.

### **A range of Bio-power fuels is now emerging**

We are now looking at quite a range of products that can be sold to meet different types of market interest. Most of us are making fuels for average users like busses, lorries and cars. Our aim is to sell the fuel at a profit whilst keeping the price a few pence lower than ULSD. I think most of us sell at between 65p and 75p per litre including tax. This is the fuel we call Bio-power V100. However, we can also make specialist fuels as follows

**Bio-power Green Star** a blend of 100% organic natural materials. £1.10 to £1.20 per litre. This fuel would be sold to people who want to be 'ultra green' in their life style.

**Bio-power V100** a blended fuel with some recycled solvents aimed at average use £65p per litre. This fuel is aimed at the average motorist, and will run in all diesel engines without modification just like normal derv.

**Bio-power transport** a low tax bio-fuel for sale to licensed users under the scheme we propose to the Government. It may be that vehicles will need some form of modification to run well on this fuel.

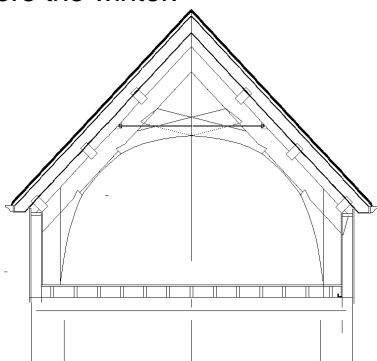
**Bio-power G100** our basic generator fuel stock for large generators running constantly, not for road use.

**Bio-power start-up** a special fuel for stand-by generators that is not so bio-degradable and is quick starting.

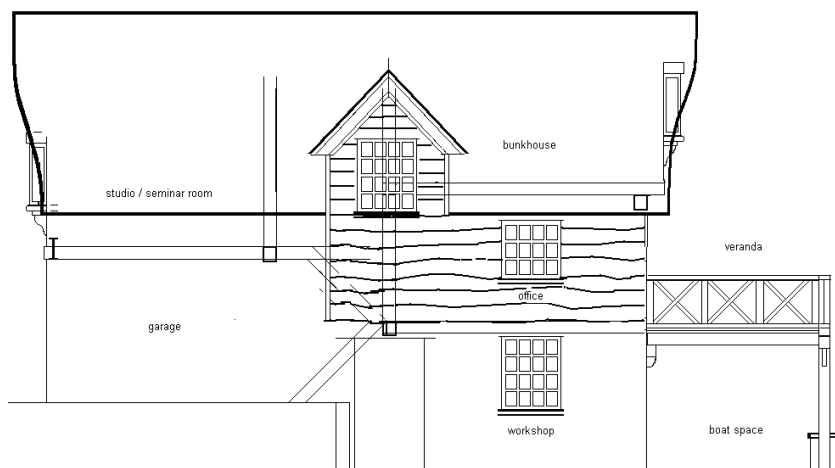
**Bio-power Lube** An upper cylinder additive derived from bio-oils which is added to the fuel tank when otherwise running on DERV, sold in 1 litre and 2 litre containers.

## BIO-POWER house emerges from the rubble

I have been asked to show more about the development of the new offices, laboratory and seminar room for Bio-power (UK). This is a reconstruction of a former stone barn or cow shed that the previous owners decided to demolish. I have used all the old stone work for the main ground floors, including very heavy solid stone lintols. The four main trusses are being made up ready to be jacked into place in July. The roofing and cladding should not take very long. I hope to have the building ready for use before the winter.



The arched truss design for the seminar room



Elevation showing the main areas of the building  
The ground floor is built in stone, and the upper floors will be straw bale with timber cladding, timber



The elevation of the workshop facing the garden  
The projecting long stones will support the veranda



The elevation of the garage facing the yard lane  
The wall on the right will conceal the service connection to the main house



The interior stairs and pit made in blocks.  
Both ground floors will be insulated and heated  
The generator will be hidden in the chamber on the left where broom is, under the second flight of stairs

We are designing Bio-power House to be an example of sustainable practice, not just in the use of renewable materials (timber, stone with lime mortar slate and straw bale insulation), but also in the way it will be heated and serviced. The new concrete floors to the workshop and garage are already laid on insulation, and have embedded heating pipes. These will be the radiator to a diesel generator that will provide the hot water, and the electricity for the whole building and also provide electric power to the main house. The generator will run continuously providing both electricity and hot water from waste fat.

If you have spare time and would enjoy helping with the construction and furnishing of this building then do let me know. I need all the help I can get. This would be an excellent project for anyone wanting to learn about traditional building work, electrics, plumbing or joinery.

## **Our Next Introductory Seminars**

27, 28, 29 June  
11,12,13 July  
25, 26 27 July  
7, 8 and 9 August  
5, 6 and 7 September  
19, 20 21 September

All to be held at the Victoria Hotel Llanberis. The cost of the Seminars is £150.00 which includes food and refreshments served during the course. A list of local hotels and guest houses is available. These Seminars are intended for members who are considering setting up to make our form of fuel on a commercial basis as part of the Bio-power network. We cover all the issues that have to be taken into consideration, including licenses, taxation, planning, environmental red tape, and the technical aspects of the process itself. It is essential to book for the Seminars by sending us an e-mail.

The charge made so far for the seminars just covers the cost if we have a minimum of 6 delegates. We have made a loss when we get cancellations or people do not turn up whom we have made catering arrangements for. However, if there are more than 7 delegates then we put the surplus aside to provide a discount for people who are not able to afford the standard fee. If you feel that your circumstances warrant a special discount then please let us know. It is not our intention to prevent anyone from participating with us due to any circumstances.

## **Meeting of technical working groups:**

We are now wanting to progress the work of activity groups on the following subjects, and I am therefore calling meetings for interested parties on the dates as follows...

**London and the South East Cell meeting** (being organised week beginning 23<sup>rd</sup> June)

**Commercial Power Generation** 5<sup>th</sup> July

**South West England Cell meeting**, at the Green gathering Mendip, Cheddar, Somerset 2<sup>nd</sup> August.

**Inaugural General Meeting**, conference, workshops and gathering – 22, 23, 24 August, Llanberis – or any other suggestions?

## **Plans for the Bio-power Community annual gathering and AGM**

We are looking at the weekend of 22, 23, 24 August, Llanberis. This will include our first AGM, and the election of the new Board of Directors. There will also be informal meetings of the working groups and workshops. I hope people will come forward who can help with the organisation of this first event, especially providing a children's programme. I hope there will also be plenty of informal discussions, sailing on the lake, and a barbeque. There will be a camp site and also a conference room. I hope as many members as possible will attend this event. If you have any ideas or suggestions then please contact me ASAP. Also please submit any issues you wish to raise for formal debate or decision at the plenary session. As this will be our first AGM I do not propose any formalities, but it is important to send any motions or issues for debate in writing before 1<sup>st</sup> August.

## **What services can you provide to other members?**

I have heard from members who run all kinds of businesses, and it may well be that we can offer these services to others in the Bio-power Network. Printing, children's entertainment, making organic soaps and detergents, IT and software development, making embroidery labels, joinery, and a wide range of engineering skills to name a few. If you have a business or service that you would like to tell others about then please send me the details. This is NOT advertising in a commercial sense. It is optimising our resources.

## **Did you spot the (un)deliberate mistake?**

And thanks to so many of you for pointing my error out so quickly. Really, this is a good way for me to tell who is reading their Bio-power News. Of course the tax rate for us in the UK is 25.82p per litre NOT

26.82p per litre. BUT it may not stay that way. If Gordon Brown follows his proposals then we will end up paying more tax very soon when the tax rate on fossil fuel increases. The effect of this is that any (welcome) increase in the tax on fossil fuels will create an even narrower margin for us to produce bio-fuels.

However, there is a plus side to this scenario. Think of all the big companies making RME. This is a much more costly and inefficient method. They will feel any narrowing of the margins far more than we will. The effect of cutting margins even narrower is to give us a trading advantage. Think about it.....

### **Your comments on BPN so far:-**

"I like the idea of a 'bio-power house' would esters flow feely from large ornate fountains and the garden be set to different varieties of oil seed, perhaps consider a hemp maze? I hope you are now well and that your illness wasn't the result of drinking methanol." *Tom Furness, Cardiff*  
*Any ideas for planting are welcome JN*

"I am tremendously excited by the opportunities afforded by your setting up of the bio-power network. The idea of enabling many local small businesses to produce an ecologically sound fuel from a 100% recycled source and challenge a market dominated by global multinational corporations is something that I wholeheartedly support. The fact that the basic chemical processes behind it are so easy to comprehend also mean that in my view, this is a technology that will gain rapid growth and soon enter mainstream culture and cease to be seen as purely an 'alternative' or 'experimental' technology." *Robert Scully (Fat Bob), Bradford*

"Thanks for some very useful and encouraging information. It is great to know that I am not alone in this but am part of a whole group of people quietly doing their bit to achieve a real change in the world."  
*Marcus London*

Thank you for giving me a new direction in life. Don't laugh - it may not last, anyway - but I feel as though I've at last found a religion!  
*Joe, West of Scotland*

### **Answer to the quiz**

Most people guessed it immediately. Boiling the red plastic drum lids in a washing soda solution to clean them.

### **STOP PRESS Web site blackout**

The Bio-power web site is regularly being 'bombed'. This means that some sensitive information is not available to readers. Generally it is the letters and free download section that is affected. However, last week the whole of northwales.org.uk site was disabled. The service provider says that this is because it is not being accessed for over a month. We know that is not true. We do want to get the whole of bio-power on to its own independent server at [www.bio-power.co.uk](http://www.bio-power.co.uk), as quickly as possible.

We also have prepared the layout for the closed members site which will become the main communication medium for the development and running of the bio-power network and its sub groups. This requires a security system so that only valid members can access the site, and also so that each member can access those working groups they are listed with. This will require cgi scripting in pearl or similar. Is there any member who can help with this sort of IT work?

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

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*Tanrallt, Rhostryfan, Caernarfon, Gwynedd, LL54 7NT 01286 830312*