

bio-power news

Issue 14

June 2004



Have you booked your tickets yet?

Don't expect to arrive at the last minute - and be fed!

There is now less than one month before the opening of the Dragon Fire event in Llanberis. It is vital that everyone registers their booking with Graham Eastwick of Energy 21. Dragonfire is planned as a prestige event, professionally prepared to a high standard. It is not like a 'Green Gathering' which people can just turn up at the last moment. Because of the need to plan catering, and allocate space and book toilets etc for the camping site it is essential that everyone who intends to camp sends in a booking form. These can be downloaded from the web site www.dragonfire.org.uk and go to the bookings page. In case you have difficulty I have attached a summary booking form at the end of this issue.

Graham Eastwick – the event manager - is very concerned that so few people from Bio-power have so far registered to attend. So please make it clear that we are part of this event by sending off your booking form with payment as quickly as possible. Do not send the booking information to me, it must be sent to the Energy21 office at the address given on the booking form.

It would be a very great help to graham if you can send an email confirming that you will be coming and then follow this up with your booking form and payment.

Dragon Fire

A week-long series of events celebrating renewable energy especially biofuel
10 - 18 July in Llanberis, North Wales

Exhibition, conferences, workshops, camping and family fun.

Don't miss this!

www.dragonfire.org.uk

Book your exhibition place urgently;
volunteer as a steward;
or sign up to attend!

Download a booking form now from
www.dragonfire.org.uk/booking%20form.pdf
or use the form at the end of this BPN.

Send it to Energy 21, Not to Bio-power.

Environment Agency position fuels Global Warming

Many of you will already be aware of the problems some of our new members have had from the Environment Agency. This is because our work is now beginning to bite into the livelihood of other fat collectors especially members of the trade association called 'ACORN' which stands for the 'Association of Cooking Oil Recyclers Nationwide'. We have received a number of threats from ACORN members claiming that we have 'stolen' their fat when we have entered into contracts with fat users so they set aside their fat for us to collect. Now they have decided to report every one of us to the Environment Agency claiming that we need to be regulated in the same way as their members have to as waste managers.

The EA maintains that because our feed stock is regarded as a waste it remains a waste until it is burned in our customer's car engines. In principle this means that anyone using a bio-fuel as a way to address the issue of Global Warming is also subject to Waste Regulations. In practice the EA have magnanimously said that they will not actually prosecute car drivers for having no waste management licences, although they clearly are not encouraging people to find alternative ways of using materials that will otherwise become as waste and will have to be treated as such.

Our view is that waste is created because of the attitude of people through ignorance or laziness. Everything could be designed or enabled to have a new form of use, and where things can be recycled there should be a means of benefit to encourage the bit of extra effort of care that is needed to keep materials separate and directed to the most environmentally beneficial pathway. There is a need for everyone to be thinking of better ways of using resources so as to prevent the creation of waste. In the case of used organic oils, as well as many materials that are waste like tyres, and slaughterhouse waste, there is a commercially viable pathway by which these materials can be converted into energy or liquid fuels, the use of which as an alternative to fossil fuels will reduce the effects of Global Warming and Climate Change.

The EU Directive on Waste Management and Environmental Protection in Article 3 actually highlights the need for member States to encourage the prevention or reduction of waste production and its harmfulness, in particular by the development of clean technologies, and the development and marketing of products to make no contribution or the smallest possible contribution to the harmfulness to the environment. It is of relevance that this precedes clauses that deal with the disposal and treatment of waste, which implies that the EU places a greater priority on the means to reduce the creation of waste than the means to deal with the waste created.

It is our view that the form of Bio-diesel that is being promoted by the UK government is far from an ideal solution, and huge sums of public money are being spent on this now out-of-date technology. Meanwhile those of us who are developing better techniques that are more efficient and do not create waste by-products have received any scant recognition or support from the Government. We face a situation where the Environment Agency now maintains that anyone making a bio-fuel from second use cooking oil must register as a Waste Management Site. Getting this licence will cost several thousand pounds for every one of us, with an ongoing fee of £1,000 per year. Most Bio-power agents start up with a setting up cost of less than £2,000. It is very important that we act now to ensure that our operations do not fall into waste management regulation.

We hold that we are providing an exemplar case in which we have identified a new and commercially viable pathway for material (used cooking oils) that formally and otherwise become a waste through the lack of any better pathway for this material. The former use of this material as an energy additive to animal feeds has been banned by the EU, but Britain (who opposed the ban - despite the fact that we suffered more than any other nation from the effects of the BSE and Foot & Mouth outbreaks), has deliberately delayed the implementation of the ban on grounds that there is no alternative pathway for this material. We say there is an alternative pathway, and one that also serves to provide a form of bio-fuel that helps to address the issues of Climate Change and Global Warming. As such our work should be fully supported by the EA, and not impeded by totally obstructive regulation that does not serve any purpose in terms of environmental protection.

We are therefore planning a political campaign to draw the attention of government to the stupidity of the EA's position. Marc Thomas has prepared an excellent pack of information which is published at a special site at:
<http://www.bio-power.co.uk/wastenotwantnot>

This includes all the background to this issue, with a draft letter and supporting documents which members may send to their local MP asking them to support us. This will result in a meeting which will be convened by Paul Keetch MP (Lib Dem). Full instructions can be found in the file:
<http://www.bio-power/wastenotwantnot/memberscampaign.htm>

It is important that you keep as closely as possible to the wording of the draft. This is a time when every reader of Bio-power News can help us do something that will change the whole future of the world for the better. If you care about the environment and achieving a sustainable future use of resources then you will realise that what the Environment Agency is doing is not protecting the environment but just the opposite. It is preventing those of us who do care about the future from every being able to do the very things that are essential if we are to stop the effects of Global Warming. It staggered us that the officer in the EA who is responsible for this position did not know that Sir John Houghton was the chairman of the IPCC scientific assessment group of the Intergovernmental Panel on Climate Change.

DfT consultation 'Towards a UK Strategy for Bio-fuels'

As promised in the budget the UK government is now asking people to respond to a paper prepared by the Department for Transport. I am very grateful to Des Hill for preparing a draft response to the consultation from Bio-power, which I include below. This document has saved me many hours of work, and it is presented professionally. His draft addresses all the actual questions set out in the consultation, and I propose to include this largely as it is but with some additional reference to other broader issues that have arisen over the last few years for example the situation with the EA, and also the inconsistent position taken by officers from HMC&E on whether our fuel meets the criteria and also whether oil grown as an energy crop can be used to make a bio-fuel to be sold with the lower taxation rate. Also, anomalies like we have to charge the full road tax on bio-fuels used by the National Trust to cut lawns and trim hedges because the government claims that there is no way to mark or provide a tax rebate on bio-fuels. If we are to encourage the development of bio-fuels in the UK then it is very important that all government departments act in the same 'joined up' way without the sort of conflicts between DEFRA the DTI, the DfT and the Treasury and HMC&E that we have experienced so far.

Please read through the draft that Des has prepared and let me know ASAP if you have any significantly different views or wish any further material to be included. I would like our official response to be submitted well before the Energy Event.

I hope many of you will also respond in your own right, but I ask that you do not refer to the fact that you have any relationship with Bio-power in case this may discredit our formal presentation. So do respond as an individual or as an independent bio-fuel business.

The consultation documents can be found on the web at www.dft.gov.uk/roads/biofuelsconsultation The closing date is Friday 16th July. Please send me a copy of any reply you submit for our records.

News from around the world

Denver fuels 60 City vehicles with bio-diesel

Ten retail service stations throughout Colorado began offering Biodiesel fuel at their pumps on 19 May 2004. Blue Sun Biodiesel will supply the fuel for the 10 service stations, located in Carbondale, Colorado Springs, Crested Butte, Denver, Durango, Fort Collins, Greeley, La Salle, Pueblo, and Sterling. The new Biodiesel pumps are in addition to two pumps that opened last year in Boulder and in Commerce City, a Denver suburb, as well as a pump that opened in Fort Morgan in February. Denver Mayor John Hickenlooper attended the fuel pump opening in Denver to discuss the city's pilot program. The mayor announced in late April that about 60 city vehicles will be fuelled with B20 (a blend of 20 percent Biodiesel and 80 percent diesel fuel) for the next 8 months, and the city will gather information on vehicle fuel mileage, maintenance, repairs, performance and emissions. See the press releases from the National Biodiesel Board (PDF 29 KB), as well as the lists of new and existing Biodiesel pumps on the Blue Sun Biodiesel Web site. Download Acrobat Reader.

Although most Biodiesel fuel in the United States is produced from soybean oil, Blue Sun Biodiesel is working to reduce the cost of the fuel by developing and producing low-cost oilseed crops for dry-land agriculture on the high plains of Colorado, Nebraska, and Kansas. In February, the company's primary agriculture supplier - Blue Sun Producers, Inc. - was awarded a \$450,000 grant from the U.S. Department of Agriculture. Under the grant, members of the Blue Sun Producers cooperative will grow mustard-based oilseed crops for use in producing Biodiesel fuel. Source: US DoE: http://www.eere.energy.gov/biomass/cfml/news_detail.cfm/news_id=6890

COMMENT High oil prices are obviously a marvelous "fuel" to increase efforts for the development of renewable fuels such as Biodiesel. And as Biodiesel is home grown other less calculable costs for e.g. risky military actions can be saved and redirected to sustainable energy supply measures.

Draft Response to Consultation on UK Strategy for Biofuels - by Des Hill.

This text has been prepared by Des Hill as a response to the Governments consultation on a Bio-fuels strategy for the UK.

Q1. Do you consider fuel duty as the most effective method of promoting biofuels, and if so why?

Definitely. The effectiveness of fuel duty was clearly demonstrated with the switch to ULSD from high sulphur diesel, and also with the uptake of LPG. As the report states

"A substantial increase in the current fuel duty incentive of 20p per litre could certainly be expected to boost sales of biofuels in the UK, and could have a rapid impact"

The current incentive is not sufficient to allow biofuel producers to compete effectively with fossil fuels. If Waste Vegetable Oil is used the cost of collecting the raw material and the cost of additional chemicals for the processing more than absorbs the duty incentive making the resultant fuel uncompetitive. If new vegetable oil is

used, this is currently in the region of 50p per litre wholesale, making it uncompetitive even before any processing is considered.

It was interesting to note from the report that the UK was the only European country which differentiated between biofuel and fossil fuel, but continued to apply fuel duty to fossil fuel (with the exception of France who have a very low duty).

Another advantage of duty incentives is that they can react rapidly to the market place, and may be reviewed on an annual basis. Thus we believe that the fuel duty should be dropped to a very low level (or set to zero) from biofuel to stimulate the industry. As the market grows, it will be possible to increase the duty, such that the cost to the exchequer is minimised. Simultaneous with increases in Biofuel duty, it would also be possible to increase the duty on fossil duty, so that blended fuel will remain largely the same, 100% fossil fuel will incur higher duty, and 100% biofuel will attract lower duty. The levels of duty would have to be set depending on the penetration of biofuel to the market and such that the overall cost to the exchequer was minimised.

A further advantage of fuel duty incentives is that it would encourage users to use 100% biofuel where this was possible. This would encourage vehicle manufacturers to increase the number of vehicles capable of running on 100% biofuel, and thus increase the total biofuel penetration.

Q2 Do you consider some form of renewable obligation as the most effective form for promoting biofuels, and if so why?

No. The road fuel market is significantly different to electricity power generation. It is currently split into biofuel producers (currently small scale) and Oil companies (multinationals). Introducing obligation on the oil companies would upset the market forces within the sector, and force the biofuel companies to sell to the oil companies rather than develop their own markets. This would stagnate further research into biofuels, and prevent take up of biofuels beyond the imposed obligations. Overall this would result in less use of biofuels than the duty incentive option.

In addition this market split would force the industry into some form of certificate trading which would be expensive and difficult to manage in practice, and open to abuse.

A suitably low biofuel duty will stimulate investment in this sector, without the need for obligations.

Q3 How might an obligation be made to work in practice.

We do not agree with obligation. Part of this is because they would be hard to enforce in practice, expensive to administer and open to abuse.

Q4 Who should the obligation be placed on (oil refineries, suppliers, retailers or others)

We do not agree with obligation. One reason is because it is difficult to see where obligation could be applied. Some vehicles are capable of running on 100% biofuel, some may use up to 20% blend, some only 5%.

Oil refiners are not Bio fuel producers and this would be away from their core business.

Suppliers (where these are separate from the oil refineries) may have a role to play, but often these are directly linked to refineries.

Retailers would be very dependant on their local market, and it would be difficult to apply an obligation on them.

A fuel duty incentive will allow the market to grow in accordance with its needs and will prove more effective than an obligation.

Q5 Should the Government further explore the option of facilitating a voluntary agreement to secure biofuels sales targets.

No. Again it is difficult to see where the agreement would be reached. Oil refiners produce fossil fuels and are separate from bio fuel producers. The report states that the oil industry does not favour a voluntary approach.

Q6 Should the government do more to support Biofuel production through increased regional grants, enhanced capital allowance, or research and development.

Yes. The current level of tax incentive is too small to allow profitable biodiesel production without large initial investment into a large scale plant. This is hampering development of the industry. Grants would assist in expansion of the industry.

Although research into biofuel has a long history it has been sporadic and often inconclusive. Current methods of production are wasteful (Transesterification for FAME) or energy intensive (distillation for Bio-ethanol). A number of other methods exist for production of biofuels but their effectiveness needs further research. Bio-Power are involved in alternative methods of Biodiesel production which are less wasteful than the current transesterification methods.

Q7 How significant are the risks of promoting unsustainable production of products such as palm oil to meet European demand for biofuels?

This is a significant risk. One method of controlling this would be to place an obligation on the supplier who was not using WVO, or European sourced raw materials to prove that the raw material was produced in a sustainable manner (some form of voluntary certificate). This may be hard to police in practice.

Q8 How important is carbon certification to ensure Biofuels can fulfil the Governments objectives to reduce road transports carbon emissions.

Not important. Biofuels, by their nature will greatly improve the overall carbon balance by reducing the amount of Fossil fuel burned. Although fossil fuels may be used in the production of the raw material, this will be very low compare to the benefit gained in the fuel used. Any fossil fuel used in the transportation of the fuel will be comparable or less than that used for fossil fuels.

Q9 Given that biofuels will almost certainly come from imports as well as UK production, could some form of environmental sustainability assurance scheme realistically operate cost effectively.

A voluntary scheme may work best here. Biofuels produced from WVO, or from European raw materials would automatically be assured as sustainable. Biofuel produced from imports from outside Europe would have to prove sustainability using some form of voluntary scheme. (ie. if it cannot be proved to be sustainable, it cannot be assured as such).

Q10 Do you agree that labelling at retail pump sales points provides adequate protection – are there other sales points that should be considered.

Yes. The labelling suggested will be very helpful.

Q11 Do you agree 5% is a suitable margin for labelling Yes.

Q12 Do you agree colour coding of pump nozzles and hoses is necessary Yes

Q13 Are the proposed colours appropriate Yes

Q14 Should the labelling require retailers selling biodiesel not to the standard BS EN14214 to make this explicit on the label? Or should this be left to the market to decide?

No. Bio-Power is developing Biodiesel using methods other than FAME by Transesterification. This is because Transesterification is a wasteful process, produces unwanted by-products and requires additional chemicals which are normally produced from fossil sources. The Bio Power fuel will meet BS EN 590, but would not meet BS EN 14214. This because BS EN 14214 imposes some chemical composition standards on the fuel to ensure that the Transesterification process is of a high enough standard. As the Bio-Power process does not use Transesterification then it would not meet these requirements. However it will meet BS EN590 and not increase legislative exhaust emissions. Requiring the label to explicitly state that a fuel did not meet BS EN 14214 would unfairly prejudice our fuel, and also other fuels made by non transesterification methods (eg Fischer Tropsch).

Q15 Do you think that the Government should do more to provide information to the public on biofuels and other renewable fuels? What kind of information specifically?

The government needs to make people aware that:

Biofuels give a positive contribution to reducing CO2 accumulation.

Biofuels will not cause engine damage or further pollution

Biofuels are endorsed by the government.

Q16 Do you agree that the basis of our biofuels target for 2005 should be our best estimate of biofuels sales given current levels of support?

Unable to comment.

Q17 Do you agree with our projections of 12 million litres a month biofuel sales by the end of 2005?

Unable to comment

Q18 Do you agree that we should defer setting a 2010 target until 2007?

A target should be set once the method for promotion of biofuels is decided as this will have in impact on both the target and promotional benefits. However setting a target before 2007 will allow the adoption of benefits earlier, and steps towards meeting the target to be realised earlier

Q19 What are your views on the level that a 2010 target should be set at?

A 2010 target should be as a minimum 5%, and probably more. The use of a tax incentive will be the only viable method of achieving more than 5%. In order to meet a higher target it will be necessary to persuade buyers to purchase vehicles that are capable or running on 100% biofuels. There are a number of these on

the market now (mostly from Volkswagen/Audi, and Mercedes). An increased tax incentive will have this effect whereas obligations will not.

In Summary

We in Bio-Power believe that biofuels offer a method of achieving significant reduction in CO2 emissions from road transport, using existing proven technology, and using existing vehicles which in some cases are capable of running on 100% biofuel without modification.

The only barrier to a widespread introduction of these fuels in the UK has been an unrealistic tax regime which despite a tax advantage has not given sufficient incentive to make production of biofuels a commercial proposition.

By careful management of the fuel duty of both Bio fuels and fossil fuels based on market share, the government has an opportunity to achieve a significant reduction in CO2 in a very short time scale. *Des Hill*

Our family holiday leads to a new Bio-power project on Malta.

I apologise to the many people who have not received replies to e-mails or phone calls recently because we have been away in Gozo and Malta for a very welcome short holiday. There is a great deal we could all learn from the way things are done on the islands.



Part of the Roman aqueduct on the island of Gozo

The dustbin men come every day, and collect the rubbish which is not put out in huge wheely bins but is placed in supermarket plastic bags, one for each type of rubbish which are then hung out on hooks screwed into the outside walls of every house. They have many different types of water so washing water can be used for irrigation. Each local council builds the structure for new traditional homes from the local limestone to provide sufficient accommodation for the population. The stone can be cut with woodwork tools, so the new occupants can fit their own plumbing, electricity and wooden windows and doors.

We also met Jean Paul Galea, who lives in Malta and had read about our process on the web. He was particularly interested to understand how we can make a fuel without

the need for Caustic Soda and Methanol. He is now building a new processing plant, and should have the first fuel available in the next few weeks. There is a lot of oil to collect in Malta, and the quality suggests that a lot of olive oil is used as a cooking medium. Now that Malta has joined the European Union, they will have to comply with the regulations to reduce carbon emissions, and the development of a Bio-power facility will be a useful step in then right direction.

The price of diesel and petrol is very low on the islands because there is a much lower taxation on fuels, but Jean Paul's research suggests that there would not be any tax on non-fossil fuels, following the direction of Germany and Italy where there is also no excise duty on renewable fuels. European legislation provides the power to place a tax on Mineral fuels only, and for this reason most other EU nations do not charge Duty on renewable fuels, except the UK of course where the chancellor has only granted a tax break of 20 p on the current tax rate of ULSD.



This old Bedford bus is typical of all the busses in the Maltese islands. They are very old, very clean and very cheap to travel on.

Dean Butler is tanking up with vegetable oil for a trip to Heathrow

story by Jonathan Morris BBC News Online South West

Every day the Plymouth owner of VIP Airport Transfers does about 500 miles and the only smell from his exhaust is of fish and chips. Dean is one of the growing number of Plymothians dropping into Plymouth Bio-Fuels to tank up. They do it because it is cheap - 69.9p a litre - and unlike ordinary fuels, it is a renewable resource.

Plymouth Bio-Fuels, based in Plympton, renews its stock of vegetable oil every day from pubs, chips shops and leisure centres around the city. It all goes into 1,000 litre plastic vats where it is filtered, settled, filtered again and has undisclosed special ingredients added, before being put into the fuel tanks of people like Mr Butler.

He reckons that his fleet of five people carriers saves him £4,000 a year in fuel costs. He told BBC News Online: "I live down the road so it is easy to come here. It's cheaper and I like the fact that it's better for the environment than using non-renewable fuels."



Dean Butler, Green fuel fan

Diesel in 1889, were powered by peanut oil. They attended a seminar in North Wales run by the Bio-Power Association and are now producing the fuel in Plymouth. There are plans to increase supply from 1,000 litres to 2,000 litres a week soon, but Dr Knight said that there is enough waste oil in Plymouth to produce five times that figure.

Bio-Fuel, which is almost 100% used vegetable oil, is related to bio-diesel, which is a combination of ordinary diesel and vegetable oil. Producers of both fuels are banned from using unused vegetable oil because there is no fuel tax on it. But Bio-Fuel gets the same 20p a litre tax discount from the government which means that although it is more expensive to produce than ordinary fuel, its price can be kept low.



Bio-Fuel takes five weeks to produce, from fish shop to fuel tank.

If Mr Butler or other Plymouth Bio-Fuels customers cannot make it to the Plympton pumps, they can top up with ordinary diesel. Former GP Dolly Knight, 57, and geology student Jonathan Stromberg, 35, launched Plymouth Bio-Fuels last year after several years selling products made from copper tubing to alternatively-minded people who want to improve the quality of their drinking water.

"A friend in Germany told me about it," said Mr Stromberg. "We were already on an environmental path, so it wasn't such a major step for us to take. We have always had a vision of running cars on renewable fuels, now it is a reality."

The couple point out that the first diesel engines, patented by Rudolf Diesel in 1889, were powered by peanut oil. They attended a seminar in North Wales run by the Bio-Power Association and are now producing the fuel in Plymouth. There are plans to increase supply from 1,000 litres to 2,000 litres a week soon, but Dr Knight said that there is enough waste oil in Plymouth to produce five times that figure.

For drivers to make the switch to Bio-Fuel, the firm offers advice and equipment including uprating filters, fuel pumps and installing fuel heaters at a cost of about £200. Bio-Fuel when cold is thicker than ordinary diesel and so clogging can occur if it is not heated. But when warmed it can also pick debris from diesel tanks which can also cause problems. The firm also warns drivers that they do not accept any responsibility for damage caused by the fuel.

However, the couple are adamant that any diesel car can run trouble-free with their advice and the right equipment, although new cars could have their warranty affected by using Bio-Fuel.

Dr Knight maintains that her own Audi TDi estate has run without any trouble on vegetable oil. She said: "We ran the Audi for several months before deciding we could market the fuel.

"We treat every customer individually so we look at their requirements and advise them accordingly. We do the modifications and we give them 100% support of anything happens." The couple are now hoping to expand and they see a future of other outlets like theirs. Plymouth Bio-Fuels is the only outlet in Devon and there are only



Frying tonight: Dolly Knight and Jonathan Stromberg



Bio-Fuel producers claim the product is less polluting than ordinary fuel

about 30 Bio-Fuel factories around the UK at the moment, but they are increasing in number with the support of environmental groups like Friends of the Earth. Back at the fuel pump, Mr Butler is setting off to Heathrow, powered by left-overs from his own local fish and chip shop.

STOP PRESS

Jonathan and Dolly will be appearing on a BBC TV program to be broadcast on Wednesday 15th June at 11 am on BBC 2. It is about the implications of the increases in the cost of fossil fuels and the opportunities to use alternative fuels such as Bio-power fuels.

Letters from our members...

Hi John, The first time I encountered Bio Fuels was about 18 months ago when a friend of mine showed up running his boat on Bio-Diesel sourced from a supplier in Northwich. The difference was amazing and I vowed that as soon as I had run my tank low enough I would switch. I have just tried to make the switch but now find it impossible to get bio-diesel anywhere near my location in Stafford, Staffs. The best I can do is a 5% mix from a Rix service station which means I have to pay tax as a road fuel, the supplier in Northwich also charges Tax as a road fuel and has a minimum order of 1000 liters.

This is how I came across your website. This weekend I experimented with running my boat on ASDA Value cooking oil, 100% rapeseed oil. It runs smoother quieter and with less smoke than with the red diesel. I also think it may have more power, but it is hard to tell whether this is because it runs quieter and smoother therefore you use more throttle, certainly the 'hole shot' acceleration is much better and with none of the characteristic cloud of black smoke.

As you quite correctly predicted on the site, I am now completely hooked on this technology and would very much like to attend one of your introductory seminars. Please could you send more details and the date of the next seminar. Thanks and best regards, *Andrew Foster-Borman*

Hello! You've got me onto making biofuel from WVO (from the works canteen) using your simple procedure from the biofuels website, I got a fuel heater fitted and my car runs fine, so thanks for this! It's great using a sustainable fuel, and it's very satisfying making my own! *Tim, Wokingham*

Hello John, My name is Steve Jose. I am an aircraft technician with BA. I looked at your web site back in 2001 and I was very interested. I ran my Astra 1700 non turbo on SVO, 80-20 derv and 50-50 in winter on a private road with no problems. I have found a source of WVO and have contacted HM CUSTOMS they are sending me a advise pack, the chap I spoke to said I would pay 27.10p a litre. At the moment I have only one source of WVO about 75 litres every two weeks this will be enough as I only drive 8000 miles pa. Many thanks, *Steve*

Bio-Power Member's Questionnaire.

Please help us to maintain accurate and up-to-date records, and also to improve or steer the future direction of Bio-power by answering the questions on the questionnaire to be found at the end of this issue. Print the page and answer the questions in pen and then post the form to: Bio-power (UK), Tanrallt, Rhostryfan, Caernarfon, Gwynedd, LL54 7NT.

Our SEMINAR PROGRAM:

SEM 30 12, 13, July as part of the Dragonfire Energy Event

SEM 31 6, 7, 8 August – Trigonos

SEM 32 10, 11, 12 September

SEM 33 8, 9, 10 October

SEM 34 12, 13, 14 November

SEM 35 10, 11, 12 December

SNIPPET from Bryan Dalton: Recent prices feedback (14th June) Costco 20 litres oil £9.69, Makro 4 litres white spirit £2.32 all inc VAT Diesel at pump 82p What is it like your way?

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DRAGON FIRE Booking Form

	Event (for date see the calendar on the colour brochure)	£	Please send more information	Book number	Price of items booked
1	Camping Family unit per night Small tent for one or two	10 5			
2	Renewable Energy Workshop	120			
3	Bio-power Introductory Seminar	120			
4	Opening Ceremony	FREE			
5	Renewable Energy Tour	10			
6	Exhibition Company stand NGO stand	150 5			
7	Tour of the Exhibition (schools) Fee for school	25			
8	Tour of the Exhibition (organisations) Fee for NGO Fee for company	25 100			
9	Tour of the Exhibition (disabled groups)	FREE			
10	Conference day 1	150			
11	Conference Dinner	30			
12	Conference day 2	30			
10 + 11 + 12	Combined Conference ticket (both conferences plus dinner)	190			
13	Children's Program	12			
14	Barbecue Adults Children	4 2			
15	Bio-power AGM and member's meeting	FREE			
16	Carnival	FREE			
17	Energy21 Networking	FREE			
18	Bio-power Saturday workshops	10			
19	Ceilidh Adults children	10 2			
20	Bio-power Sunday workshop	10			
21	Bio-power regional cells	FREE			
22	Closing ceremony	FREE			
Combi ticket	includes everything except the conference per person 10 nights camp plus 2 or 3, 5, 14, 18, 19, 20.				
Voluntary Steward	Please indicate here if you are available				

Please make your cheques payable to 'Energy21', and send this form to ENERGY21, The Energy Store, Estate Yard, Castle Combe, Wiltshire SN14 7HU

TOTAL _____

Donation to the development of renewable energy

Cheque enclosed (payable to Energy 21)

Your Name

Address

Telephone E-mail address

Special requirements

To contact Energy 21 by phone: 01249 783415 by e-mail: info@dragonfire.org.uk web site: www.dragonfire.org.uk

Bio-power Members Questionnaire

Please help us to maintain up-to-date records, and also improve or steer the future direction of Bio-power. Print this page and answer the questions. Then post the form to: Bio-power, Tanrallt, Rhostryfan, Caernarfon, Gwynedd, LL54 7NT.

Your name:

Your full postal address:
..... Post code:

Your telephone number: E-mail address Web site if you have one:

Your Membership status http://www.

Tick which category best suits your situation?

Passive Supporter ... Potential customer for Bio-power fuels ... I make my own bio-fuel ...
I plan to attend a Bio-power Introductory Seminar ... I have attended a Seminar ... I plan to become an Agent within the Bio-power Network ...

Have you paid the £15 membership fee? Y / N If so when?

Your involvement

Do you receive Bio-power News? Y / N Do you receive the Member's Supplement? Y / N

Do you like the size and format of Bio-power News? Y / N Comments

Do you like the content? Comment

What sort of features would you like to see included in Bio-power News?

If the £15 subscription was for one year of membership do you think it is good value? Y / N

Will you attend the Dragon Fire event? Y / N Will you be attending the Bio-power AGM 17th July Y / N

If you use or make Bio-fuel can you say what make and model vehicle you have tested it in?

Any comments on performance ?

Do you wish to become more involved with activity groups and working groups within the Bio-power network? Y / N

Do you wish to join a local Regional Cell of Bio-power members and supporters? Y / N

Additional Questions for people who are making fuel for commercial sale

We need to be able to say how much bio-power members have added to the economy through investment and job creation.

How much fuel are you able to produce in litres in an average week? month

How many people do you provide with full & part time work (including yourself and your family)? &

Approximately how much do you think you have invested in setting up your business in terms of capital spent on workshop, vehicles, plant and machinery, consultation / research / seminars etc

£

Do you have difficulty in selling your fuel? Y / N or making enough to meet demand? Y ? N

What problems have you experienced when setting up?

Any other comments: