

# bio-power news

Issue 5

August 2003



*This is quite a lively edition of BPN in which I have included some of the more critical comments received from members to our draft tax proposals. I do want to encourage debate BUT at the same time I do not want to delay the formal presentation to the government of a response that is realistic and likely to be received and acted upon.*

*Sorry to say I had to cancel Seminar 18, and I must apologise also to many of you for the delay in returning receipts. It has been very hectic here with building work, and drains up in the rain.*

*Lastly, I can't see us holding the AGM in the summer, it may be an Autumn event, or may be even something that will have to wait till next Spring. JN*

## The seriousness of Climate Change

Extreme weather prompts unprecedented global warming alert

Information taken from a report in the Independent 3 July 2003

Bio-power's principal motivation and ethical aim is to address the issue of Global Warming, which is caused by Climate Change. Those of you who have attended our Introductory Seminars will know how serious this issue is, and how desperate is the need to change the way we use fossil fuels. Yet it is still astonishing to read the announcement on global warming and extreme weather issued by the World Meteorological Organisation, which reveals the extent by which the world's weather is going haywire. In a startling report, the WMO, which normally produces detailed scientific reports and staid statistics at the year's end, highlighted record extremes in weather and climate occurring all over the world in recent weeks, from Switzerland's hottest-ever June to a record month for tornadoes in the United States - and linked them to climate change.

The unprecedented warning takes its force and significance from the fact that it is not coming from Greenpeace or Friends of the Earth, but from an impeccably respected UN organisation that is not given to hyperbole (though environmentalists will seize on it to claim that the direst warnings of climate change are being borne out). The Geneva-based body, to which the weather services of 185 countries contribute, takes the view that events this year in Europe, America and Asia are so remarkable that the world needs to be made aware of it immediately.

The extreme weather it documents, such as record high and low temperatures, record rainfall and record storms in different parts of the world, is consistent with predictions of global warming. Supercomputer models show that, as the atmosphere warms, the climate not only becomes hotter but much more unstable. "Recent scientific assessments indicate that, as the global temperatures continue to warm due to climate change, the number and intensity of extreme events might increase," the WMO said, giving a striking series of examples. In southern France, record temperatures were recorded in June, rising above 40C in places - temperatures of 5C to 7C above the average. In Switzerland, it was the hottest June in at least 250 years, environmental historians said. In Geneva, since 29 May, daytime temperatures have not fallen below 25C; making it the hottest June recorded. In the United States, there were 562 May tornadoes, which caused 41 deaths. This set a record for any month. The previous record was 399 in June 1992.

In India, this year's pre-monsoon heat wave brought peak temperatures of 45C - 2C to 5C above the norm. At least 1,400 people died in India due to the hot weather. In Sri Lanka, heavy rainfall from Tropical Cyclone 01B exacerbated wet conditions, resulting in flooding and landslides and killing at least 300 people. The infrastructure and economy of southwest Sri Lanka was heavily damaged. A reduction of 20-30 per cent is expected in the output of low-grown tea in the next three months.

Last month was also the hottest in England and Wales since 1976, with average temperatures of 16C. The WMO said: "These record extreme events (high temperatures, low temperatures and high rainfall

amounts and droughts) all go into calculating the monthly and annual averages, which, for temperatures, have been gradually increasing over the past 100 years.

New record extreme events occur every year somewhere in the globe, but in recent years the number of such extremes have been increasing. According to recent climate-change scientific assessment reports of the joint WMO/United Nations Environmental Programme Intergovernmental Panel on Climate Change, the global average surface temperature has increased since 1861. Over the 20th century the increase has been around 0.6C. New analyses of proxy data for the northern hemisphere indicate that the increase in temperature in the 20th century is likely to have been the largest in any century during the past 1,000 years.

While the trend towards warmer temperatures has been uneven over the past century, the trend since 1976 is roughly three times that for the whole period. Global average land and sea surface temperatures in May 2003 were the second highest since records began in 1880. Considering land temperatures only, last May was the warmest on record. It is possible that 2003 will be the hottest year ever recorded. The 10 hottest years in the 143-year-old global temperature record have now all been since 1990, with the three hottest being 1998, 2002 and 2001. The unstable world of climate change has long been a prediction. Now, the WMO says, it is a reality.

We have always held the view that the general public is not adequately aware of the effects of Global Warming. Even if the carbon Dioxide levels were not increasing as a result of burning fossil fuels and cutting down carbon sinks like the rain forests, there is still the legacy of Greenland's thin ice which is well below the latitude where ice should occur. This ice is balanced precariously and a slight increase in temperature could bring a sudden increase in sea levels of 7 metres. This would be serious enough in the UK and Holland, but we could raise the necessary funds to create sea defences. But in densely populated areas like Bangladesh there is a huge coastline because of the estuarine landscape, and there is not the economic infrastructure to create adequate sea defences. The melting of Greenland's ice could cause the displacement of over 150 million people.

## Going Green?

### **Are you helping to shape the future energy industry by the way you purchase your electricity?**

Nearly four in five UK energy consumers (79%) don't know they can buy electricity generated from clean renewable sources but 64% would be prepared to pay up to £40 extra per quarter to switch to a green alternative. More than half (56%) would contact their current supplier to obtain information on green electricity and 48% would search the Internet, reveals research commissioned by online comparison service, uSwitch. The survey findings come as uSwitch launches the first green electricity comparison calculator which enables consumers to compare green tariffs which are rated by Friends of the Earth.

"There has been a lot of controversy over the 'greenness' of various energy tariffs which discourages people from making a switch for the better. Our new tool will help set the record straight by giving consumers the facts. Hopefully they will see through the slick slogans of some companies and ensure they get exactly what they pay for" said Jon Miller, Head of Product Development at uSwitch.

He added: "While it only costs £1 a week extra for the most expensive green electricity tariff there are a selection of green tariffs available in the current market at the same price or cheaper than equivalent non-green tariffs. However, it's hugely encouraging that 64% of consumers are willing to pay up to £160 extra per year for a green tariff. The survey also shows that 51% of consumers would be prepared to give up cab rides to pay for a green tariff, 48% would give up a magazine subscription and less than a third (32%) would give up cigarettes."

Nearly two thirds (60%) of those surveyed consider pollution and climate change to be the biggest environmental challenges facing our planet. However, 40% of Brits mistakenly believe that burning waste is an environmentally friendly way of generating electricity and while 15% consider coal or oil to be clean and green. It's this ignorance which wastes resources, adds to pollution and impacts on health.

The study into UK consumers' awareness of and attitudes to environmental issues follows the Earth Summit in Johannesburg, where the EU was forced to retreat on its targets for renewable energy in the face of implacable opposition from the US and oil producing nations.

Jon Miller said: "The survey demonstrates the public are concerned about key environmental issues but feel confused about the best approach to take. Environmentally savvy consumers can and should make simple changes to their lifestyle which will make a positive difference to the environment. Our survey demonstrated that people are prepared to make that change. Nearly half (48%) would consider recycling their household waste and one in three would avoid buying packaged products."

Other findings:

1. 12% of consumers would pay an extra £1 per quarter for green electricity, more than a third of (36%) would pay an extra £2-10 per quarter, 11% would pay £11-20 and 5% would pay £21-£40.
2. 43% believe pollution is an important environmental issue
3. Nine out of ten people (94%) are concerned with pollution, climate change, deforestation and plants and animals dying out.
4. A mere 2% considered clean drinking water and poverty to be key environmental concerns despite the fact these were the only issues where there was some kind of agreement in Johannesburg.
5. 82% believe reducing the use of fossil fuels is important
6. 88% of people already insulate their home or would be keen to in future
7. 63% already eat organic food or would do so in the future. Bryony Worthington, Energy and Climate Campaigner for Friends of the Earth said: "Switching to a green electricity tariff is one of best and simplest ways of making a difference for the environment - a quick phone call or a visit to a website can reduce pollution and help stop climate change. But it's amazing so few people realise they can do it - we hope that uSwitch's new calculator will enable more people to make a difference."

uSwitch provides a free independent and impartial advice to consumers about which green tariff would best suit their needs. It is possible to make an informed choice using the handy calculator on the web at

<http://www.uswitch.com/energy/index.asp>

## **GLOBAL NEWS from the Austrian Bio-fuels Institute (ABI)**

The USA Agriculture Secretary, Ann M. Veneman, announced the availability of \$920,000 in grants to conduct a Biodiesel fuel education program. "The Biodiesel education programme supports President Bush's energy plan to expand the economic prospects and environmental promise of renewable energy," said Veneman. "This Administration is committed to encouraging the further development of a Biodiesel industry in the United States."

The purpose of the programme is to award the grants for the development of an education program to target governmental and private entities that operate vehicle fleets. Biodiesel can be made from almost any agricultural oil including soybean oil, animal fats and recycled greases. Biodiesel has many environmental and health benefits. It is biodegradable and reduces air toxics and cancer-causing compounds and can be considered to be an environmentally preferable fuel. Burning Biodiesel or Biodiesel blends reduces most forms of air pollution, including sulphur dioxide, carbon monoxide and particulate matter.

*COMMENT:*

*Seems that a Trans-Atlantic race for supporting Biodiesel has been started! Whoever is going to win such a race of the giants - the winner in the long run will be the human being living on good old mother earth with a cleaner environment and a more sustainable energy supply. Werner Korblitz*

## **Novaol expands its strong Biodiesel position in Europe**

Novaol, the major Italian Biodiesel producer, has announced the project for the extension of the production capacity of its Livorno Biodiesel plant by installing a new continuous production line representing an investment of 7 mill Euro. The new capacity is due to start up in June 2004. Mr. Claudio Rocchetta, Novaol Group's CEO, stated that this decision to double the production capacity of the Livorno factory is a demonstration of the importance of this plant for the BUNGE Group's strategy. BUNGE, now world-wide largest oilseed crushing company, had acquired Cereol and its Biodiesel producing affiliate Novaol last year and was until then not engaged in any Biodiesel activity as already exercised by the main competitors Archer-Daniel-Midlands (ADM) and Cargill. Mr. Rocchetta is confident that the Italian market is ready to reach the 2 % Biodiesel market share target as defined by the recent European Directive for the Promotion of Biofuels.

*COMMENT:*

*Great step forward and ambitious actions to meet the Directive's goals! It is estimated that the 2 % market share represents approx. 400.000 tons of Biodiesel and that Novaol is going to increase its market share from 39% to 63% by 2005 assuming no major investments by the other already existing 6 Biodiesel producers. Another assumption is that all produced Biodiesel is directed into the transport sector while so far a major share is marketed as heating oil in Italy. Werner Korblitz*

## Some of your responses to our proposed new taxation policy for bio-fuels

*I have not included everyone's response, you would be reading it for a week! By far the majority of your comments were supporting the basic form of the draft, or they brought in new ideas. I have included in this issue some of the more critical or controversial views expressed, and I have put in some comments of my own in italics.*

Hello John,

I've read through BPN 4 and would like to make a few suggestions please.

I basically agree with your definition of what bio-fuel is but feel it needs to be expanded slightly to implicitly include the use of waste materials as well. For example: "any fuel that is made from non-fossil or non-mineral materials and any fuel that is made from organic or readily bio-degradable waste. Food quality organic materials should be excluded." Or variations of this. *Surely the original definition 'any material that is non-fossil or non-mineral' does not need any further definition? jn*

You also come up with some interesting ideas to try to promote the use and re-use of the things we throw away. I am interested in how the tax system can be used to promote a more responsible attitude towards how we can recycle what we use and feel that this could be a very real way of "helping" people to change their attitudes. People like the BP network, you and me are already trying to change for the better.

This aside, there is a big conflict of interest as far as the government are concerned. On the one hand whoever is in power has to promote a more environmentally responsible attitude towards our way of living in line with the Kyoto summit, European Directives and the like. On the other hand, whoever is in power has to raise as much money as possible to pay for the services this country needs in order to function. *But may be IF we were all persuaded and enabled to be more careful in our use of materials then the government would not have to raise so much money to pay for all the clearing up. We are in fact making their task simpler and easier, so they do not have to raise so much to pay for all the services. JN*

Herein lies the problem. Taxing the less environmentally responsible things we do in our everyday lives is one of many answers. This will "help" people and industry to change over to a better way of living. In doing this change-over though, the government will be getting less and less money through taxation. The planet and people's health will begin to improve, that's for sure. The government will be a lot poorer than now also. (Perhaps it will force them to stop wasting money on silly projects like Ferris wheels, millennium domes, the channel tunnel and the like...)

I am definitely in favour of scrapping all fuel duty on genuine bio-fuels. Tax mineral and fossil fuels yes, but not Bio-fuels. It must be noted that, like you I suspect, I do not regard Bio-diesel as a genuine bio-fuel because of the use of mineral materials in it's manufacturing process, let alone the blending with Derv.

I find the idea of Bio-fuel production, sale and use licences extremely questionable. I know exactly why this is proposed (the conflict of interest above) but feel this is un-workable and un-realistic.

*The government already licences all processes involving organic chemical reactions through the Environment Agency, and we are in effect 'licensed' to collect Duty when we register for entry on the Customs & excise register or fuel producers. JN*

If people had to pay for these licences (which the government would ensure is the case) then people would carry on using fuels like red diesel and heating oil for road fuels, people like myself would not legally produce bio-fuel and people in general would not use it even if we did produce it. The prime reason for this is because it would be cheaper not to have anything to do with bio-fuels. Off-road diesels are now, it is difficult to make a profit from bio-fuel production now and people are questioning the viability of bio-fuels based on fuel duty, technical and legal grounds now without the idea of needing a licence to use it or buy it. Sorry, this is definitely not a good idea.

I feel we are all in a no-win situation. The government wish to control what we are doing, which to a very limited extent is no bad thing. The government wish to utilise an extra source of income, without money the country grinds to a halt. We wish to establish and maintain a consistently high standard of quality fuel, which the seminars and contact between us can achieve. The government and us wish to do something good for the environment and maybe improve it. We are actually and seriously doing this, the government are just playing lips service and trying to make money out it.

I don't know the answer I'm afraid. One thing I do suspect though is that maybe we should just get on and do what we are good at, producing a high quality bio-fuel that is technically, legally, environmentally and financially sound. We should also pester the government to scrap fuel duty on true bio-fuels and let them figure out how to run the country, after all that's what they are there for. A very simplistic and idealist, probably stupid, point of view; but it has enabled me to survive so far. So long as a strictly high standard of quality of bio-fuel is maintained, Bio-power (UK) Ltd and its fuels will speak for themselves. The crucial thing here is consistent quality. The seminars and adequate back-up from all of us will ensure that.

Please include a 'Thank you' to Andy Mason for the info on burning MWVF in boilers. As it happens I am interested in trying to find a way of supplying electricity to myself and the grid, supplying my own heating and producing my own gas (yeh I know, stuff a pipe up by back...) I've found a heap of diesel generators that could help with this and your idea of a CHP unit reminded me that I could probably use a genny engine cooling system to heat the house and water as well as provide electricity.

The best to you all. Geoff Bell, Norwich.

John,

I must disagree with your taxation proposals, and also with your bio fuel definition.

I do not think the way forward would be to license bio fuel users. The most flexible and interested fuel user is likely to be the private motorist with a diesel car, and this market sector must not be cut out by a system of licenses. As vehicles do not require modification to run on your type of fuel, this customer may change fuel type as situations dictate.

Other users (eg local authority fleets) are subject to corporate agreements, and will require top level decisions and a reliable supply in order to take advantage of bio fuels. This requires the industry to be more established than it currently is, whereas the private motorist may take advantage of a piecemeal small industry with patchy coverage (as it currently is) and give the industry the income it requires to grow. Most private motorists would happily use bio fuels, with only a small or even non-existent price advantage provided it was readily available.

Your taxation recommendation appear to be based on two factors:-

- 1) a need for the government to continue to gather fuel based taxes, and
- 2) a concern about the amount of waste raw material available to produce fuel.

Currently, with the small size of the UK industry, the tax question should not be a problem for the industry. I believe the best way to tackle this would be for the government to introduce a sliding scale whereby the tax value on the fuel would be linked to the level of production. Where production is small, only a small tax should be levied to kick start the industry. (LPG has shown how effective this can be). As the amount of fuel available increases, then the taxes could be increased to account for the greater market share. At this point it would be worthwhile increasing tax on fossil fuels to maintain a differential, and make up for any overall tax loss.

The other point is to ensure that sufficient raw material is available to produce the fuel. If we rely purely on waste material, we will reach saturation quite quickly. Thus there will be a need to use raw oil direct from the field. This is why I disagree with the definition. The term "food quality organic materials should be excluded" should be removed. The definition should read "Any fuel that is manufactured exclusively from Non fossil or non mineral materials". *To allow food quality fat stock will raise all kinds of problems with the government. They do not want people simply buying fat from the supermarket as fuel. JN*

I agree that food quality oil oils should not be used for fuel, but the definition as it stands however may preclude farmers from producing lower grade oils specifically for fuel use. Without access to this resource, bio fuels will be dependant on waste products only and can never make a major impact on the fuel market. We would then continue to be dependant on fossil fuels. Currently there is sufficient slack in UK farming to allow a significant increase in the amount of rape grown. An increase in the size of the industry may also extend diversity in the type of crops used for fuel (as oil seed rape is not the most pleasant plant and requires intensive techniques) *But rape seed oil is not the best form of fat stock to use, and those that make better fuels are not grown for food. On this basis there is no conflict. JN*

The reason there is an interest in using SVO in vehicles is that it is an easy fuel to use. It is possible to buy it from Tesco's (or wherever), and put it straight in the tank of a modified vehicle, with no further effort needed. If WVO is used, or a fuel derived from it, then much more effort is require to clean and prepare the fuel. If Bio Derived fuel was readily available commercially, especially at a lower price than food grade SVO, (as LPG currently is) then interest in using SVO in a vehicle would almost disappear.

I realize this is almost in complete contrast to your proposals, but I think it would be a major mistake to prevent the private motorist from making use of bio fuels.

Des Hill,

### **Re taxation of bio-fuels: Thanks very much for this.**

"2 They also do not want to see any eduction in revenue from fuel use because this is an essential income needed to pay for schools, roads, and other public services." It seems to me they are thinking too narrowly: what matters is the total revenue from taxation, not the specific revenue from road fuel. Here are some of the options:

1 Raise taxation on aviation. The Royal Commission on Environmental Pollution has already called for a tax of at least £70 on each flight. The hidden subsidies to the aviation industry are well documented: no VAT on ticket sales, no tax on fuel and others. If aviation were properly taxed, this would give room to reduce tax on bio-fuels for road transport.

2 Alastair Darling has already indicated that, if congestion charging is introduced in a big way, then there would be compensating reductions in other road taxes. If this happens, then green fuels should be reduced substantially more than non-green fuels.

3 This is politically sensitive, but there is a need to raise the cost of fossil fuels used for heating of buildings. This is needed to encourage the market for insulation of buildings. And it should provide revenue that could be used to reduce the tax on bio-fuels for road transport.

If global warming is not tackled vigorously, there may not be any schools etc to be paid for.

Best wishes, Gerry Wolff

## **Our programme of events.**

I have not been able to even make a start with arrangements for the Summer Gathering and AGM yet, so I am now looking at an Autumn or even a Spring event.. I also had to cancel seminar 18 because of the situation here with building work and drains up every where and endless days of rain! However, I am very concerned when we have last minute apologies from people who said they would come on seminars because we still have to pay for the hire of the hotel room and the provision of food and refreshments etc. I prefer to run the seminars in small groups of between 5 and 10, and so far we have managed to cover our costs albeit on occasions by a very narrow margin. This does not cover my own costs in providing the seminar material. In future I will require a firm booking commitment from people intending to attend our seminars that I must receive before the weekend prior to the weekend of the seminar itself. I have also cut down the programme to one each month to be held on the second weekend of the month until we have our own seminar facility at Bio-power House. Our new programme schedule is therefore as follows. Please let me know at once if you intend to come to the next Seminar on 8<sup>th</sup> 9 and 10 August.

### **Our Next Introductory Seminars**

Seminar 19	8, 9, 10	August
Seminar 20	5, 6, 7	September
Seminar 21	10, 11, 12	October
Seminar 22	7, 8, 9	November

## **News from members.**

### **Bio-Kerosene**

Hello John,

I got the biopower news this morning and I am glad you liked my comments about your biopower house. I notice you say allot of people have contacted you about home heating. I as I mentioned in my last e-mail have funding to produce a bio-kerosene. I am working with the BRE (buildings research establishment) and the University of Glamorgan and a UK boiler manufacturer (in negotiations at the moment). The aim is to produce a fuel that is a direct replacement for kerosene that people can pour in the tank and forget about. I hope to be able to run tractors on it too. Biokero is the what I am calling it this week.

Thanks Tom Furness

### **More useful suppliers**

**March May Pumps Ltd.**, Eaton Works, Howard Road, Eaton Socon, Cambridshire, PE19 3NZ 01480 214444

**Anchor Pumps Ltd.**, C2 Taylor Business park, Risley, Warrington, Cheshire WA3 6BH 0870 777 9844

**Little Giant Pumps**, Pump House, 100a, Lilac Grovce, beeston, Nottingham NG9 1PF.0115 922 2211  
[www.littlegiantpump.com](http://www.littlegiantpump.com)

**Pump Supply & Repair Ltd.**, Armstrong Hall, Wharton Road, Winsford, Cheshire CW7 3AD 01606 594328

**Everyvalve Equipment Ltd.**, 19 Station Close, Potters Bar, Hertfordshire, EN6 1TL 01707 642018  
[sales@everyvalve.com](mailto:sales@everyvalve.com) [www.everyvalve.com](http://www.everyvalve.com)

**Crosland Filters**, Part number 700 is an ideal transparent on line fuel filter. Get your nearest agent from Filtrauto UK Ltd Glaisdale Parkway, Nottingham, Notts. NG8 4JX 0115 9291145

**Fileder Filter Systems**, St Leonards Road, 20/20 Maidstone, Kent, ME16 OLS 01622 691886  
office@fileder.co.uk

**Effast (UK) Ltd.**, Trinity Business Centre, Brunnel Road, Totton, Southampton SO40 3WX 02380 667188  
info@effast.co.uk [www.polypipe.com/effast](http://www.polypipe.com/effast) Wide range of pipes, valves and fittings.

**BIOFA Natural**, organic paints and preservatives 45 Gloucester Street, Brighton, East Sussex, BN1 4EW  
biofa@villanatura.co.uk [www.villanatura.co.uk](http://www.villanatura.co.uk) 01273 685800.

**Allibert Buckhorn**, spill control products, and fluid safety equipment, St Oswald's Trading Estate, Gloucester, GL1 2UQ 01452 420400 helix@myerseurope.com [www.allibert-equipment.com](http://www.allibert-equipment.com)

**Denios**, comprehensive liquid management, spillage control and prevention equipment, Audley Avenue Enterprise Park, Newport, Shropshire, TF10 7DW 01952 811991 sales@denios.co.uk [www.denios.co.uk](http://www.denios.co.uk)

### **IBCs and Oil Drums available**

We now have a good supply of IBCs and Oil Drums. These have been cleaned and are available to our members from North Wales from £40 to £20 for IBCs and £10 for steel drums. Contact: John Nicholson, 01286 830312, johh-nicholson@ntlworld.com

### **Collection vehicles available through James Joyce at Bognor Regis.**

I have just acquired a suitable oil collection vehicle. It is in fact a milk bottle local delivery transit (3.5 tonnes), with a covered flat bed and pull down shutters either side. They can carry 1.5 tonnes and can be pallet loaded, unfortunately IBC's only fit on their side (1m high side shutters). There is a rear locker that could be modified to allow IBC to be loaded from the back, all openings are lockable.

There are several available on L, M, & N plates and diesel engines with improved engine noise deadening, and +80 000 miles. They come direct from Unigate and my landlord is changing them into flatbed or tippers for sale for between £1 200 - £2 000. Its a delivery vehicle that cops and traffic wardens wouldn't notice. Contact: James Joyce 01243 544705 help@arunautogas.freeserve.co.uk;

### **Cheap LHD diesel Mercedes, VW Passats are available through Peter Venyi, Germany**

We have received an offer for the supply of LH drive vehicles, complete with UK MOT, that are well known to run well on bio-fuels and even WVO. Mercedes have been recorded running well over 150 K on pure rapeseed oil in Germany. These vehicles are offered in a good condition. Price Passats limo and combi are by £1,500, Mercedes 124 series 200-300 diesel around £3,000 depending upon on age and condition. VW Transporters T2 T3 series also available. All delivered UK with UK MOT. Elspeth WVO conversions can be fitted at about £400 extra, but with any conversions you are in a grey legal area. Contact: Peter Venyi Heinrich Fuchsstrasse 120 69126 Heidelberg Germany 0049-6221-4334556 0049-170-6258985 [p.venyi@web.de](mailto:p.venyi@web.de).

### **Tips and Hints**

If you are building or using three stage fuel line heating, then I have before recommended the 100 watt Stanadyne unit supplied from Thomas Injection Centre, 93 Ellingham Industrial Estate, ASHFORD, KENT TN23 6LZ **01233 642816** However, these now have thermostats included which operate at far too low a temperature. Jonathan Stromberg has found that the component can be replaced by a 70 deg. thermostat which can be obtained from RS components stock No. 339-308. Tel: 01536 201201

### **Some quotes:-**

"Bio-power must be the only site on the web where people come to get fat" – a new member

"I am currently experimenting with a 1.9 turbo diesel fiat engine, running on 1 micron filtered from cold fish and chip oil. I can cruise at 100 and do 118 when I need to...." *And it gets worse...*

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

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