



18 July 2007

Mr Phillip Costa MP
Chairperson
Legislative Assembly Standing Committee on
Broadband in Rural and Regional Communities
Parliament House, Macquarie Street
SYDNEY NSW 2000

Dear Mr Costa

Broadband Innovation Trials

Country Energy is a leading Australian energy services corporation owned by the New South Wales Government, with around 4,000 employees serving more than 870,000 customers. We manage Australia's largest energy supply network across 95 per cent of New South Wales' land mass, offering retail electricity in five states and territories.

Our product range includes bottled gas, internet services and energy and water management solutions. We also provide reticulated natural gas to 24,200 customers in southern New South Wales and water and sewerage services to 10,000 customers in far west New South Wales.

As part of Country Energy's ongoing commitment to developing innovative solutions and products, we have been involved in research and development programs relating to the delivery of broadband services over our existing infrastructure.

Broadband over Powerline (BPL) technology is used in around twelve countries, and utilises powerlines to deliver high speed data and voice services to customer premises. The additional benefit of BPL is that it can be used by utility companies to monitor electricity network activity, diagnose problems and remotely connect, disconnect and read electricity meters.

Country Energy has embarked on a six-month BPL trial in Queanbeyan and Jerrabomberra in South-eastern New South Wales. As part of this trial we are offering residential customers in a limited area the opportunity to connect to high speed broadband and voice over internet protocol (VoIP) services. The trial will run through to the end of 2007, at which time Country Energy will undertake a comprehensive review of the technical and operational performance of the technology.

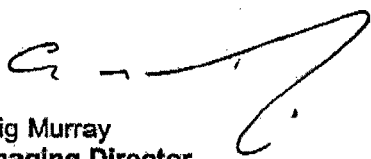
I would invite the Committee to visit Queanbeyan and inspect the BPL project at a time of your choosing. We would propose a briefing with Committee members on the technology and our trial, followed by a field visit to see how the BPL equipment is installed and operating on our electricity network.

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I also enclose a copy of a brochure explaining the current Queanbeyan project for the information of your Committee members.

I trust that this information is of interest to the Committee. If you require further details, please contact Ben Hamilton, General Manager Corporate Strategy, on 02 6214 9750 or via email to ben.hamilton@countryenergy.com.au

Yours sincerely



Craig Murray
Managing Director

cc Mr Steve Whan MP
Member for Monaro
110-112 Monaro Street,
QUEANBEYAN NSW 2620

BROADBAND OVER POWERLINES (BPL)

Everything you need to know about Country Energy's BPL Trial

countryenergy

We live here too.

countryenergy

We live here too.

WELCOME.
THIS IS YOUR GUIDE
TO COUNTRY ENERGY'S
BROADBAND OVER
POWERLINES (BPL) TRIAL.
IN THIS GUIDE YOU
WILL FIND EVERYTHING
YOU NEED TO KNOW
ABOUT THIS EXCITING
TECHNOLOGY.

FOR FURTHER INFORMATION,

CALL THE

BPL SUPPORT LINE

ON 1800 222 256

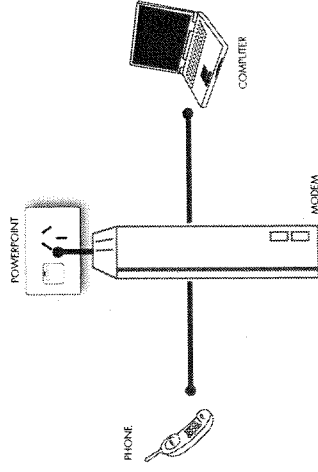
OR VISIT

www.broadbandpowerline.com.au

INTRODUCTION TO BPL.

What is BPL?

BPL stands for Broadband over Powerlines. It delivers high speed internet and telephone services over powerlines to your home or business. BPL enables the internal wiring in a building to be used for data carriage so you can access BPL (and the web) via the power points in your home.



Where is BPL being used?

BPL now has a global reach. There are BPL trials in at least 12 countries and early commercial deployments in Europe, the United States and Asia and throughout Australasia.

What is happening in Australia?

Country Energy is one of several energy companies in Australia exploring BPL technology through field trials. Many of these are working as part of Unihel - an association of power companies with a telecommunications industry interest - to share information about the technologies performance and capabilities.

Why is Country Energy exploring BPL?

Country Energy has around 195,000 kilometres of powerlines and 1.4 million power poles across 95 per cent of New South Wales' land mass. BPL technology could provide Country Energy with faster and more cost effective ways to manage many of its network activities. For example, it may be possible to utilise the technology to better monitor and control the network during supply interruptions or to remotely read household meters.

By utilising Country Energy's existing infrastructure, BPL technology could also provide broadband telecommunications services to regional and rural communities where telecommunications infrastructure is absent or existing alternatives are expensive.

What are the main features of BPL?

- Speeds up to 40 times faster than 256Kb ADSL connections
- high speed internet and broadband phone services from virtually anywhere in your home via power points
- always on - no dialup or internet call charges
- no network access fees for the trial period
- potential for incredibly low cost long distance phone calls.

INTRODUCTION TO BPL.

How fast is BPL?

BPL can achieve speeds up to 40 times faster than 256Kb ADSL connections.

The equipment being trialled in Queanbeyan is a 200 Mb/sec network solution. The network speed available for individual customers does depend on factors such as network configuration and the number of customers connected at any one time. However, speeds in the 2-10 Mb/sec range can be easily achieved.

Why is BPL better than other Broadband services available?

ADSL Broadband technology is the current technology available. ADSL sends and receives the data asymmetrically, meaning information coming from the internet (downloads) is much faster than the information you send from your computer (uploads).

BPL is symmetric, allowing data to be sent at high speeds in both directions. Symmetrical Broadband is the key to providing high quality, ultra fast Broadband and telecommunication services.

BPL generally requires a single power outlet to plug a modem into. This means you can access the internet from any power point within your house simply by plugging in the modem.

BPL CAN ACHIEVE
SPEEDS UP TO
40 TIMES FASTER
THAN 256KB ADSL
CONNECTIONS.

How does BPL allow me to make cheap phone calls?

BPL uses VoIP (Voice over Internet Protocol). VoIP allows you to make phone calls via the internet rather than via your normal phone carrier therefore reducing the local, national and overseas carrier line usage charges.

Who is the service provider for phone services

FraserNet[®] was one of the first companies to introduce VoIP in Australia. They have been providing IP based phone services, or simply put, internet phones, for several years now nationally and internationally.

Proudly Australian made, FraserNet[®] has the vision to become truly global phone company that brings their customers together in one integrated network where everyone within the network can enjoy free calls and cheap phone call rates.

FraserNet[®] Internet Phone is a reliable low cost alternative to a land line or a mobile phone and provides significant savings of up to 80% on your existing phone bill.

WHAT IS INVOLVED?

Why should I participate in the trial?

BPL will give you access to extremely fast broadband access and up to \$30 free phone credit per month. In technical terms, BPL technology will provide a faster service (real 2mb - 10mb/sec speed) that has equal bandwidth for receiving and sending data and access to cheaper phone calls in the future.

This trial is the first of its kind in NSW, and you will be part of a new telecommunications rollout that will supply customers with an alternative service provider for telephone and internet services.

If I participate, what is involved?

We have made the trial simple and non-intrusive.

As a participant, you can expect a Country Energy representative to arrange to visit your home and install a BPL modem, which is about the size of a VHS Cassette or DVD Burner. The modem simply plugs into any power outlet, your computer plugs into the modem.

At this time you will also receive a phone to take advantage of broadband phone services offered as part of the Trial package.

As a participant, your free BPL trial package is inclusive of internet and broadband phone services for up to six months while Country Energy is assessing the quality and your response to the service.

All you have to do is use the internet as you normally would eg: download, surf the web and make voice calls. Country Energy will contact you to gain feedback on the BPL performance. Towards the end of the trial period Country Energy will assess all our participants' feedback in conjunction with our network experiences. If the trial has met all parties' expectations, we plan to progress a commercialisation stage.

What does the sign up procedure involve?

By expressing your interest in the trial, Country Energy analysed your internet usage and current technology to determine your compatibility with the trial criteria.

As an accepted participant, in addition to receiving this information booklet, you will also receive an Agreement form to complete, sign and return, and a Terms and Conditions booklet so you can make an informed decision about your participation in the trial.

Once Country Energy has received signed agreements, you will then be contacted individually to arrange delivery of the BPL modem and phone as well as installation.

We expect the first BPL customers to be fully operational in May/June 2007.

What's the BPL package offer?

Your internet and broadband phone services package will include:

- Internet speeds of up to 2Mb per second*
- Unlimited download**
- 5 email addresses
- Up to \$30 per month phone credit which is equal to 300 calls anywhere in Australia or nearly 2 hours of mobile talk with Country Energy's trial partner - FrasherNet. This includes local, national and international calls

* Data speeds options for the trial will be 1Mb per second and 2 Mb per second

** Data download is unlimited but Country Energy reserves the right to reduce speed limits when download levels reach 10GB.

What happens if I use the \$30 per month call credit?

Should this credit be used before the end of the month you can top up your account with a minimum of \$5 credit. The rates below will apply. Top up can be done on-line or by calling 02 6221 9777.

What are the call rates with FreshTel?

Calls anywhere in Australia to land lines will be charged as local calls at a flat rate of 10c. Calls anywhere in Australia to mobiles will be charged at a rate of 29c per minute.

Top 10 Overseas Destinations

COUNTRY	RATE PER MIN
NEW ZEALAND – FIXED	3.5c
PAPUA NEW GUINEA – FIXED	\$1.35c
SOUTH AFRICA – FIXED	14.9c
UNITED KINGDOM – MOBILE (O2)	39c
UNITED STATES – FIXED	3.5c
PHILIPPINES – MANILA	29c
FUJI – FIXED/Mobile	59c
UNITED KINGDOM – FIXED	3.5c
INDIA – FIXED	29c
NEW ZEALAND – MOBILE (VODAFONE)	50c

For more rates go to:
<http://www.freshel.net/products/callrates/>

What does Country Energy hope to achieve through this trial?

Most importantly, Country Energy will monitor the benefits this new service offers to you, our customers. We are very interested in what you see as the benefits of the product, whether or not you see value in keeping the service and how you found using the product.

We expect that our BPL activities will also show how we can achieve an improved utilisation of existing Country Energy infrastructure on a broader scale to include broadband internet and telecommunications services to our customers, and deliver increased ability to monitor and provide new services to the Country Energy electricity network.

When will the trial commence?

Once you indicate your willingness to participate we anticipate that you will be operational in May/June 2007.

I'm not a Country Energy retail customer – can I still participate in the trial?

Yes, if you live in the streets that have been BPL enabled, you are still eligible to participate in the trial. You will receive the information in the mail, just as Country Energy customers will.

Why is the trial limited to only certain streets in Jerrabomberra?

The trial area is defined by the electrical infrastructure that has been BPL enabled. Currently, this allows approximately 350 households within Jerrabomberra to have access to BPL. Further expansion of the infrastructure will be defined by the results of the trial.

What streets are included in the trial?

The following streets give a general indication to the areas that will be included in the trial. Customers living in these streets will receive information about being part of the trial.

Albizia Place	Macadamia Close
Allambee Street	Minda Place
Bluebell Glen	Murrumbidgee Place
Burgon Grove	Orangara Place
Coora Place	Panorama Crescent
Dillwynia Crescent	Pemberton Place
Elaroo Place	Peppercorn Way
Frangipani Place	Sweetgum Place
Goollara Place	Toolbal Place
Gurrunga Street	Tooroonga Crescent
Halloran Drive	Umina Place
Ironbark Circuit	Werrona Place
Lomandra Place	

I don't have a computer and don't use the web, but can I still be part of the trial to use the internet phone services?

Yes you can. The modem plugged into the phone that will be supplied is all that is needed to access the internet phone services.

If the trial is successful, will my friends and neighbours be able to sign-up for the program?

Country Energy will carefully monitor the trial and results before introducing the service to others.

In the meantime however, we would be happy to talk to any friends or neighbours who are interested in the trial, and record their details so that we may advise them of future opportunities.

Of course, all participants must be connected to the Country Energy electricity network.

DETAILS OF THE TRIAL.

How soon after the trial is completed will the program be available to other people?

Once the results of the trial are analysed, Country Energy will make an informed decision about introducing the program to other customers.

This business decision will be based on your experience as part of the overall trial results.

What if I move house or want to opt out of the trial?

For whatever reason, you are able to opt out of the program at any time.

We just ask that you let us know so that we can make arrangements to collect the modem and telephone allocated to you.

As a participant I understand I will be required to provide feedback – how often will I have to do this and what will I have to do?

Over the six months of the trial, we will contact you no more than four times by phone, internet/email, on-site technician or mail, to gain your feedback on how you're managing your new internet and phone usage, reliability and your overall satisfaction with the technology.

Also, if you would like to comment at any stage on the services provided, you will be able to call our BPL team on 1800 222 256 or email customerservice@broadbandoverpowerline.com.au

FOR WHATEVER REASON, YOU ARE ABLE TO OPT OUT OF THE PROGRAM AT ANY TIME.

How many households will be participating in the trial?

There will be approximately 60 - 100 households participating in the trial.

That means that if you participate, you will be one of the very first to experience BPL in NSW.

What happens if over 100 people want to participate?

While we will aim to have 60 - 100 participants in the first stage of the trial, we will be able to include additional participants in any planned expansion of the trial.

As a participant in the trial, can I sign up for additional services with Country Energy?

Country Energy would welcome the opportunity to provide Queanbeyan and Jerabomberra residents with a competitive electricity or gas supply quote, after all it makes sense to get your energy from the same place. Country Energy also offers forever GREEN – 100% Accredited GreenPower from renewable sources, such as wind, solar, hydro and biomass generators

Are there any other benefits?

Country Energy will be looking at how BPL can supply additional services to our customers and how it may help us to improve supply reliability and network system monitoring after the trial period, we also hope to improve the overall utilisation and efficiency of our electricity network.

If I participate, when would my new modem be installed?

Once you have returned your customer participation form, we will arrange a suitable time with you to install the modem and further explain the services offered, and how to use them.

This means you can start straight away!

THE CONNECTION METHOD ALLOWS FLEXIBILITY TO RELOCATE COMPUTER EQUIPMENT TO ANY POWER POINT WITHIN THE HOUSE.

Is there any interruption to the electricity supply when my modem is installed?

We are unaware of any issues requiring an interruption to your electricity supply when the BPL modem is installed at your residence.

Any interruption required will be to ensure the safety of Country Energy staff installing the BPL equipment.

Country Energy will keep you informed if any supply interruption is required.

Installation & Connection

What's involved with the BPL equipment installation?

Your new modem unit will be installed in your chosen location. All that is required is to plug the modem directly into your power outlet. A portable phone will also be provided to utilise the internet phone services.

In some instances, an additional power board (that turns one outlet into four for example) may be required to assist in the connection and performance of the internet and phone services.

How does it work?

Most of the technically complex work happens at your nearby substation where a BPL unit called a "head-end" is attached to the electricity network. This converts data into a form suitable to be carried on the powerlines.

The customer receives broadband communications through the electrical network and the building's internal wiring to your computer or phone via the modem.

Each customer who is BPL enabled is provided with a modem that they connect to the power socket and their computer. The modem also has the capability to convert data from the computer to a suitable format to be carried back on to the powerlines

This means that you can plug your modem into any power socket within your home to access the internet via broadband. The connection method allows flexibility to relocate computer equipment to any power point within the house.

If BPL runs out of a power point, how safe is it?

The BPL modem is internally electrically isolated from the power supply. The communications signal is the only signal flowing through to your computer, not the electricity signal.

What information will my modem be sending/receiving?

Internet Protocol (IP) data. This information is the same as any other broadband internet service, the only difference is that the data is sent and received on the electricity network.

Are there any security issues I should be aware of in regards to using the web in this fashion?

No. You should take the normal precautions you would when accessing the web via broadband or dial up, but BPL does not create any additional risks.

TECHNICAL DETAILS.

Will this involve additional charges?

No, for up to the first six months a trial package has been developed for the internet and broadband phone services we are providing. The standard package will be free of charge for internet services and provides \$30 per month* of internet phone calls during this period. Upon conclusion of this free trial period, Country Energy, in consultation with trial participants shall review the quality of service and trial outcomes and assess the opportunity of providing commercial services.

Will the BPL signal affect other appliances in my home?

No, testing to date indicates the signal will only communicate with devices that are designed to work with it. However, as this is new technology, in the unlikely event that you do experience interference, Country Energy will investigate and comply with the Australian Communications and Media Authority (ACMA) regulations.

Other appliances such as existing modems, electrical devices and phones will not be affected by the BPL equipment.

Even devices that use PLC technology themselves (such as some alarm systems and baby monitors) won't be affected.

* If you use the \$30 free phone credit per month, you will have the option of purchasing more credit with Freshie!

TESTING TO DATE
INDICATES THE
SIGNAL WILL ONLY
COMMUNICATE
WITH DEVICES
THAT ARE DESIGNED
TO WORK WITH IT.

Will the modem communicating sessions interfere with my landline or mobile phone?

No, you will not experience interference whatsoever. The BPL modem communication system operates completely independent to your existing telephone or mobile telephone.

Who do I contact if I need help or my BPL connection won't work?

Firstly, please refer to the hardware manual and documentation you will be supplied at the time of modem installation.

If you still are unable to rectify the problem,

Country Energy has a team ready to answer any questions and help with any support related questions. The number customers should use is 1800 222 256 and follow the prompts.

FOR FURTHER INFORMATION,

CALL THE

BPL SUPPORT LINE

ON 1800 222 256

OR VISIT

www.broadbandpowerline.com.au

countryenergy

We live here too.