

## Dishonesty in Basslink Debate

*- a contribution to the ongoing Basslink debate by Dr Michael Gunter, owner/operator of the Breamlea Wind Generator, Green Power producer, home-brewed biodiesel manufacturer, and **proud owner of a 21-year-old domestic solar water heater**. This document has been created on a 100% solar powered notebook computer. Gunter is also the author and webmaster of the "Voltscommissar" web site: [www.voltscommissar.net](http://www.voltscommissar.net)*

Two diametrically opposed letters appeared recently in *The Mercury*, Hobart's daily Fairfax newspaper. The page 16 headline was "HOT TOPIC", and it seems that the behaviour of new Greens party MHA Nick McKim has upset Labor's energy spokesperson Lara Giddings, author of the first letter (see next page).

She accuses the Greens of conducting an emotive campaign that ignores the facts, but her own spin is dogmatic, uncompromising, and makes unverifiable claims about the true greenhouse cost of Basslink's proposed mode of commercial operation.

This critique is continued on page 4, after the facsimile copies of the published letters.....

## Dishonesty in Basslink Debate

With images of global climate change on our television screens every night, the need to reduce our greenhouse gas production has never been so stark.

Basslink will be an important project for Australia in this sense, as it will enable us to supply clean wind energy into the Victorian market, replacing polluting coal-fired power.

That is why it is so disappointing to see Greens MHA Nick McKim playing political games on the Basslink issue.

In light of his visit, I asked Mr McKim to provide a list of the people he spoke to in Victoria on his anti-Basslink lobbying trip.

I have since contacted a number of the people on Mr McKim's list by telephone, and have been given a copy of the document he distributed to Victorian politicians, industry representatives and community groups.

The document gives several erroneous reasons for the Greens' opposition to Basslink:

1. "The Greens do not support industrial-scale wind farms."

The Tasmanian Greens' approach is totally out of step with the global environmental movement.

Environmental groups such as Greenpeace and the Australian Conservation Foundation have been lobbying for many years in support of the wind energy industry.

2. "Basslink is a major greenhouse gas emitter which will contribute an extra one million tonnes of CO<sub>2</sub>."

To the contrary, Basslink will potentially unlock a huge new renewable energy industry in Tasmania, and will contribute to the reduction of greenhouse gas emissions in Australia.

3. "Basslink will drive the growth of native forest furnaces to burn old-growth forests for power."

Emotive language continues to be the campaigning tool of the green movement, allowing the facts to be conveniently lost among the rhetoric.

In reality, there is a proposal for a power station on the Southwood site, which would use waste off the forest floor as fuel, waste that



**PLENTY OF SPIN:** Turbines at Woolnorth in North-West.

presently is literally going up in smoke during the annual regeneration fires. The real investment, which Basslink is driving, is that into wind power.

Interestingly, a media release put out by Mr McKim on his return from Victoria expressed concern that "Victorian jobs will be lost" as a result of wind energy expansion in Tasmania. Why is Nick McKim more concerned about jobs in Victoria than jobs in Tasmania?

Surely, as a representative of Tasmanian electors, his loyalties should lie in our state, not in Victoria.

The bottom line is that Tasmania's wind energy revolution is far too important to be jeopardised by political grandstanding.

Basslink is a crucial part of this revolution, and the State Government is determined to make it happen.

Lara Giddings  
Parliamentary Secretary  
to the Deputy Premier  
**Hobart**

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Next to Ms Giddings' letter was one from me. It seems the juxtaposition was purely the work of the Mercury's editors linking two independently penned but related letters, rather than either author writing in response to the other.

The Victorian Government has announced its approval of Basslink and the Federal Government has rubber-stamped it.

It appalls me to hear the misleading and downright deceptive spin emanating from Victorian ministers and private enterprise. They claim that Basslink will provide "energy security" and "renewable power for Victoria".

On at least three counts the Basslink proposal is seriously misleading the Tasmanian and Australian public.

Firstly, it is not necessary for a copper wire to be connected to the mainland in order for green power from Woolnorth or Southwood to be sold as renewable energy certificates in interstate retail energy markets.

Secondly, claims of energy security need to take the Longford gas explosion and Cook Strait cable experience into account. Even more so now, in a world

subject to indefinite terrorist threat. Basslink on the seabed gives off its own magnetic signature which makes it a piece of cake to locate and destroy with an automatic trawled bomb.

It would be far more secure especially during sunny droughts for Tasmania's energy policy and competition policy to encourage universal solar water heating; the conservation of hydro water would amount to upwards of four million megalitres annually.

Regarding competition policy 200,000 solar water heaters have enough influence on market dynamics to provide downward pressure on electricity prices for all electricity consumers.

Finally, the greenhouse impact is continually glossed over or grossly misrepresented by the proponents.

If we spend \$500 million on Basslink and the same again on wind farms, this is alleged to be "greenhouse neutral" but unfortunately a moment's reflection reveals this to be a billion dollar lie.

The scientific truth is that there will be an additional two million tonnes of greenhouse gases from coal power stations annually as the result of new Tasmanian markets for off-peak electricity.

No amount of wind power can magically put the CO<sub>2</sub> back into the ground: once burned it simply adds yet more fuel to the emerging holocaust that is global warming.

We make fun of primitive cultures that have a cargo-cult mentality to modern technology.

So should all thinking Tasmanians ridicule Basslink for its ideological distortion of scientific facts in the pursuit of market power and corporate profits.

Michael Gunter  
Kensington, Victoria

## Dishonesty in Basslink Debate

That is the order in which the letters appeared on page 16 of The Mercury, and although it appears I was given the "last word" and possibly "won the argument on points", it is very hard at this distance to keep abreast of any subsequent debate in the media. Anyhow, who will win the argument that REALLY counts, which is to convince the potential financial backers that they have been sold a pup, in that Basslink is based on anti-competitive corporatist ideology, a naked grab for market power, and twisted arguments about "greenhouse neutrality".

In my unedited letter to The Mercury, I perhaps went too far in saying that on scientific grounds, Basslink was a type of fraud. The editors deleted the sentence where fraud was mentioned.

However perhaps The Mercury should expand on the debate by doing a follow-up article in which I will publicly repeat that the proponents' "spin" regarding Basslink's greenhouse accounting is tantamount to fraud.

The points I regard as being almost that misleading (as to be fraudulent) were covered in my letter above.

But to expand on the energy/greenhouse accounting deception, I should emphasise that to use Ms Giddings' word, Basslink has the "potential" to run 18 hours per day at 300 MW in a southerly direction, using off-peak coal-power from the mainland.

At 1 to 1.5 tonnes CO<sub>2</sub> per MWh, that is creating EXTRA greenhouse gas emissions within Australia (compared to no-Basslink) at a rate of 300 to 450 tonnes per hour. Over a full year this could potentially add up to 2 to 3 million tonnes CO<sub>2</sub>.

As my letter accurately asserted, wind turbines are not magical genies that re-bottle that CO<sub>2</sub> back into the earth's crust: once the gas is released there is no quick fix on anything less than geological time scales for that to happen.

The only way Basslink could be a scientifically verifiable greenhouse benefit would be if it was a one-way conduit for excess Tasmanian hydro and wind power to supply the mainland, with a ban on the carriage of any fossil-fuelled power. Such a scenario would make it commercially non-viable, and anathema to the "cowboy-culture" mentality of Australia's deregulated energy markets.

Claims of Basslink's greenhouse neutrality are spuriously advanced by comparing it to a specific no-Basslink scenario that is fundamentally "plug-in more fossil fuel power stations" i.e. the pre-Kyoto, business-as-usual, head-in-the-sand approach.

Such a regressive benchmark is entirely inappropriate, as I attempted to show in my submission to the Basslink inquiry in Traralgon (see appendices). The honest benchmark would be WORLD'S BEST PRACTICE renewable and energy conservation scenarios. The example I chose, and it is only an example, was to imagine no-Basslink with 600 MW of peak-load displacement in Victoria, and 300 MW of baseload displacement (i.e. competition!!) in Tasmania.

## Dishonesty in Basslink Debate

The Victorian peak is actually easier to deal with, as it simply involves mandating 300,000 existing users of heat-pump air conditioning to make a commercially rational decision to substitute solar powered evaporative cooling (see a concept design at [http://www.voltscommissar.net/competitive\\_edge.htm](http://www.voltscommissar.net/competitive_edge.htm) ).

On the Tasmanian side, 200,000 solar water heaters are probably the energy equivalent to only 80 MW of continuous baseload power (assumes 10 kWh solar energy per day for each of 200,000 dwellings). This is obviously well short of Basslink's potential of 225 MW average inbound power (300 MW for 18/24). But the dollar value of retail energy savings for Tasmanian consumers, by virtue of electricity not bought, and competitive market pressure actually lowering energy prices, means that the benefit to the Tasmanian economy might be much greater than the avoided cost of 730 GWh p.a. retail hydro power (at 8 cents/kWh it is a saving of \$58.4 million p.a.) In the allegedly one-in-a-thousand-years low rainfall event, the potential value of conserving 4 million megalitres of hydro-generation water must also have considerable real value to the Tasmanian economy. Then there is the value of the jobs in making and fitting larger hot water storage tanks (300 to 400 litres each), and in manufacturing and servicing 1.2 million square metres of frost-resistant solar hot water panels.

As part of this "anti-Basslink" package, I commend to you for your own home the free plans for a suitable solar water heater, available on my web site at

<http://www.voltscommissar.net/K4/kernkraft.htm>

and

[http://www.voltscommissar.net/K4/Tactical\\_Nuclear\\_Warfare\\_for\\_Beginners.pdf](http://www.voltscommissar.net/K4/Tactical_Nuclear_Warfare_for_Beginners.pdf)

I honestly believe that unless all consumers take responsibility for their energy usage patterns, they will be complicit in causing the slow death of civilization by global warming. The only way I can explain the behaviour of the Basslink proponents in ignoring the risks and dangers is that they are in denial about the scientific truth of global warming, an/or that they have fallen for their own deceptive 'spin' about supposed "greenhouse neutrality".

Ghandi fought the British salt monopoly by walking to the sea to make salt. We must get on our rooftops and reactivate these 'stranded assets' in the deregulated energy market. This will be achieved by fully utilizing the available space to compete against largely foreign-owned energy market power grabbers, wanna-be monopolists and buccaneers who don't give a stuff about the environment.

Michael Gunter, Melbourne, Wednesday 25th September 2002

Reference:

*'Climate Change: The Scientific Basis - Summary for Policymakers'*,  
Intergovernmental Panel on Climate Change, Shanghai, March 2001  
-downloadable at <http://www.ipcc.ch/spm22-01.pdf>

## Appendix 1: IAS Submission

*www.voltscmissar.net*

21 Wolseley Parade  
Kensington Vic 3031  
31 August 2001

Basslink Joint Advisory Panel  
GPO Box 2036, Hobart Tas 7001  
(delivery by email [basslink.ias@doi.vic.gov.au](mailto:basslink.ias@doi.vic.gov.au) **and** [enquiry@rpd.c.tas.gov.au](mailto:enquiry@rpd.c.tas.gov.au))

Dear Sir/Madam,

### **Re: Formal Submission to JAP on Basslink Draft IAS**

Attached is my brief submission regarding Basslink.

I urge the Joint Advisory Panel to studiously ignore the length and technical complexity of the proponents' Basslink documentation. Big business and technocrats have a way of blinding us with science, and I believe this is happening in relation to Basslink. The CDROM alone contains 462 MB of files, amounting to perhaps 1000 pages of technical gobbledegook.

As ordinary reasonable people either in the communities of Victoria and Tasmania, or as members of the Joint Advisory Panel itself, we rely on technical experts to be non-partisan. Experts must take a broad societal view as espoused for example in the Institution of Engineers Code of Ethics 2000 edition, and give impartial advice that does not ignore or belittle major social and environmental considerations, such as global warming.

My submission focusses simply on the way the proponents have chosen to express the electrical losses associated with Basslink. If my interpretation is correct, then the true losses may have been grossly under-reported, and until such time as the JAP and the Australian public is given an unequivocal and accurate set of data for the **Transmission Loss Factor** from network node to network node, we are all completely in the dark about the greenhouse implications of the proposal.

An argument about greenhouse neutrality is also advanced.

Yours sincerely,

Michael Gunter

<http://www.voltscmissar.net>

## Appendix 1: IAS Submission

Set out below is data extracted from IAS data on the CDROM dated June 2001 as supplied in the back cover of the Summary Report of the Draft IAS.

### Summary Report Chapter 9-2 “Energy Losses”

#### *“Energy Losses*

Energy losses are proportional to the square of the current (that is, doubling the current increases the losses four-fold).

Energy losses are normally capitalised over the project’s economic life in the optimisation evaluation.”

### Main Report Chapter 5

#### *“5. Project Description*

5-9

#### **5.3.3 Energy Losses**

Physical energy losses occur in the generation, transport and use of electricity. Generators produce sufficient energy to meet customer demand plus losses in the transmission and distribution networks. The cost of these losses has to be recovered through electricity prices. Marginal loss factors are used to calculate the spot price at each transmission connection point so that the spot price includes the cost of energy losses in transporting the energy to or from that connection point. Treatment of losses in the NEM is outlined under ‘Energy Losses’ in Section 5.5.1.

Figure 5.12 shows the Basslink losses for the range of transfer capacity rates, with higher losses at higher transfer rates.”

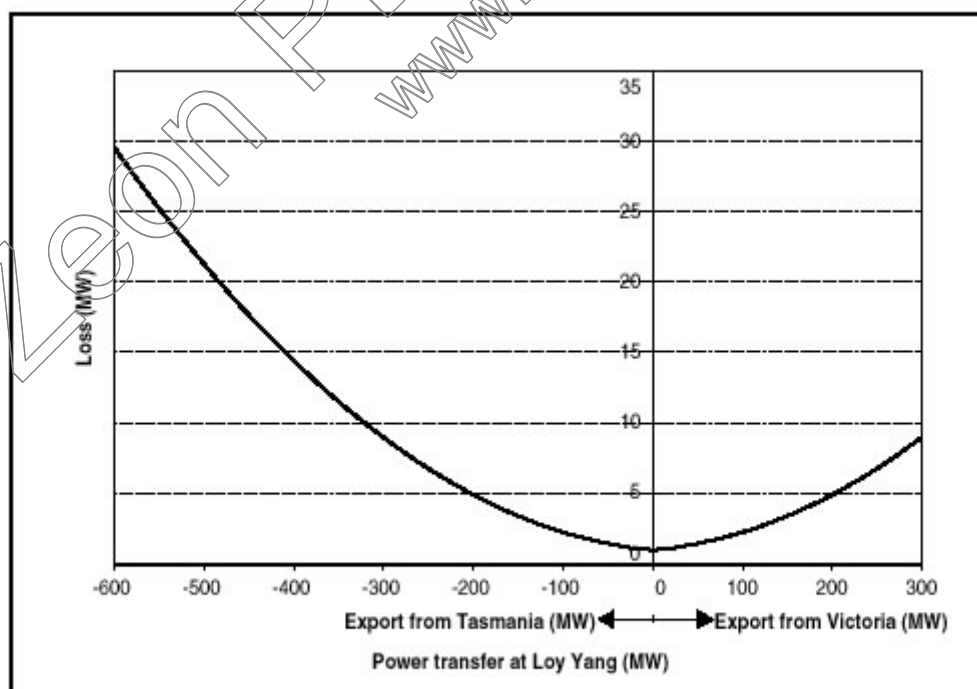


Figure 5.12 Basslink power loss

## Appendix 1: IAS Submission

Main Report Chapter 5 page 5-16

### *“Energy Losses*

Significant physical energy losses are incurred in delivering electricity to customers. These losses have to be paid for, and the treatment of losses has been developed to provide the appropriate market signals for the location of new generation and loads. To understand how losses are taken into account by the NEM, the structure of the power system needs to be understood. The power system originally developed as isolated state systems. Existing interconnectors between the states have limited capacity compared to the generation and load within the states (Figure 5.16). These interconnectors may become loaded to their capacity (constrained) on a regular basis. The spot market has been designed to take account of the limited capacity to transfer electricity between states.

The market has a form of nodal pricing with five price regions. Each region has a *regional reference node*. A transmission connection between two price regions is referred to as an interconnector. This concept is shown diagrammatically in Figure 5.17.

The price for each regional reference node is calculated each five minutes, taking into account constraints and marginal loss factors on a dynamic basis. When an interconnector between two regions becomes loaded to capacity (constrained), large differences in spot prices between the two regions can occur.

Transmission losses within a region are treated through the use of static marginal loss factors, which are calculated as an average over a year and are fixed for 12 months.

Marginal loss factors are used to provide the correct market signal for the generation or use of electricity at a particular location. Losses are represented in the NEMMCO Scheduling, Pricing and Dispatch software as a piecewise linear model.”

**Static** marginal loss factors demonstrably do not provide the correct market signal for generation location within a region. This can only be achieved with any fairness and accuracy by the use of more complex **dynamic marginal loss factors**.

The above excerpts from electronically available Basslink IAS documentation, and indeed from additional documents lodged with the ACCC at [http://www.accc.gov.au/electric/Tasmania\\_applications\\_package.zip](http://www.accc.gov.au/electric/Tasmania_applications_package.zip) - specifically *Part B-Information paper.pdf* - nowhere seek to clarify precisely what the real transmission loss factors will be for Basslink over the full operating envelope of power transfer. All that is stated is the highly ambiguous statements of power dissipation capability of the “Basslink Facilities”. This obviously begs the questions: *What is the electrical resistance or impedance of the earth/seawater return path, and has the return path been defined arbitrarily as being included in the “Basslink Facilities” or not?* It would seem rather odd to regard an existing natural feature such as the sea water of Bass Strait as being a part of the “Basslink Facilities”, and I therefore reasonably choose to assume that it is not a Basslink Facility.

Unless and until the proponents are required to make public the full Transmission Loss Factor for Basslink in each direction *between the Victorian and Tasmanian EHV networks*, nobody is able to determine how many megawatts of power loss, and its associated greenhouse gas emission cost, is actually being incurred by the southward flow of mainland coal-fired power into Tasmania.

**Transmission Loss Factor (TLF)** is the industry standard of expressing transmission losses for every existing EHV interconnector in NEM, and it is appalling that despite my formal requests to Mr Ross Gawler of MacLennan Magasanek ,



## Appendix 1: IAS Submission

project engineers in January, the best he and his company could do was to refer me to the grossly ambiguous documentation (referred to above) on the ACCC web site.

### Greenhouse neutrality

Let us assume that Basslink transfers 300 MW into Tasmania for 12 hours per day, and 600 MW hydro/wind into Victoria for 6 hours per day. This requires *at least* 309 MW to be fed in on the Victorian side, amounting to 3,708 MWh per day or 1,353,420 MWh per annum, at a greenhouse emissions cost of 1.89 million tonnes of CO<sub>2</sub> emissions p.a. Whatever the notional market sales across Bass Strait may be, the truth is that it will primarily be Victoria's physical energy from brown coal which courses through Basslink's veins.

To be truly greenhouse neutral, Basslink not only has to offset the emissions cost of smelting 4,500 tonnes of copper and its associated infrastructure, but Tasmania has to deliver at least 629 MW of emission-free electricity to the George Town EHV network connection point for six hours per day. (*at least* 29 MW is lost in the northbound transfer at full load). That amounts to 3774 MWh/day or 1,377,510 MWh/yr. This surely must be NEW hydro or NEW wind sourced electricity to have any pretence at offsetting the increased mainland generation of 1,353,420 MWh. A well sited wind farm might have a capacity factor of 30 per cent. To generate 3,774 MWh/day requires an average power output of 157.25 MW, requiring an installed wind farm capacity of 524 MW, considerably bigger than the 400 MW of wind development being touted.

However, if the seawater electrical losses have been omitted from the proponents' stated losses, then an even bigger wind farm will be mandatory for Basslink to be able to claim that "the greenhouse gas impacts of Basslink will be broadly neutral." (Draft IAS Summary Report Chapter 8)

Michael Gunter

Melbourne, Friday 31st August 2001

## Appendix 1: IAS Submission

A supplementary submission was sent in email format, approximately two minutes before the submission deadline:

>Date: Fri, 31 Aug 2001 16:27:54 +1000  
>To: basslink.ias@doi.vic.gov.au, enquiry@rpdc.tas.gov.au  
>From: Michael Gunter <mickgg@suburbia.com.au>  
>Subject: supplementary submission  
>  
>Dear Joint Advisory Panel  
>  
>I meant to put in my submission a comment about the attitude expressed in Summary Report of the Draft IAS in Chapter 8 Consequential Impacts.  
>  
>(quote)  
>  
>Consequential impacts are those that may  
>affect the environment as a consequence  
>of the generation of power to be trans-  
>mitted over the interconnector (and  
>which are therefore outside the respon-  
>sibility and authority of Basslink Pty  
>Ltd). These impacts relate to the activi-  
>ties of the generators in Tasmania and  
>on the mainland.  
>  
>(end quote)  
>  
>  
>I think this is an appalling attempt at an abrogation of corporate responsibility. There are recent reports of an agency of the International Red Cross floating the idea of an international law of torts to be applied to polluter countries and companies so that drowning nations in the Pacific and Indian Oceans can sue for the damage being wrought by sea-level rises, death of coral reefs, etc.  
>  
>Unless Basslink is demonstrably neutral re greenhouse gas emissions, Basslink may find itself a co-defendant in such an action.  
>  
>If I walk into a room that contains a drug addict and a lethal ampoule of heroin, I cannot claim "no responsibility or authority" if I sell a hypodermic syringe to the addict. Similarly, all consumers have become "addicted" to the lazy convenience of apparently unlimited supplies of energy at the flick of a switch. Basslink is to be one of the conduits for that addictive substance.  
>  
>Ironically global warming is itself contributing to hotter summers in Victoria, thus potentially expanding the market for high-priced peaking electricity: so NGIL would appear

## Appendix 1: IAS Submission

to have a commercial driver to do all in its power to increase GHG emissions and grow the market for high-priced energy transfers.

>

>By aggravating global warming (as set out in my main submission), Basslink will be proportionally responsible for massive environmental damage mediated by climate change, based on the general evidence-based scientific consensus of atmospheric physicists that global warming is a real and accelerating phenomenon. It is simply a matter of time before the evidence moves from "on the balance of probabilities" to "beyond reasonable doubt".

>

>

>

>I urge all Australian governments to adopt the sort of "technological fixes" exemplified on my web site, specifically the solar-powered evaporative cooler for Victorian and Tasmanian summers, and universal solar water heating for every Tasmanian residential roof-top ,to conserve 100,000 litres of hydro-generation water per household PER DAY throughout a long hot Tasmanian summer, especially a sunny drought summer. Bureau of Meteorology data shows unequivocally that Hobart has more hours of sunshine than Darwin for FIVE full months of the year November to March inclusive.

>

>[http://www.voltscommissar.net/competitive\\_edge.htm](http://www.voltscommissar.net/competitive_edge.htm)

>

><http://www.voltscommissar.net/K4/kernkraft.htm#weapon>

>

>The recent set-up of tradeable Renewable Energy Certificates makes a nonsense of the proponents claim that 400MW of wind power cannot be commercially developed in Tasmania without an electrical connection across Bass Strait. Similarly Green Power audits allow the transacting of Green Power certificates nationally even where no electrical connection exists. Wind power, solar water heating and cost-effective energy conservation all have huge potential to conserve hydro-generation resources, and to provide security of supply to the Tasmanian electricity system in an environmentally sustainable manner. They also stabilise volatile prices for consumers/voters.....

>

>Since when does it make any political sense in these volatile times for governments to side with big corporations against technologies that will bring jobs and net economic benefit to the Australian economy; and a good measure of energy independence to every voter in the land?

>

>This message is being typed on a 100% solar powered notebook computer.

>

>

>

>Yours sincerely,

>

>

(Michael Gunter's email signature)

**Appendix 2:**  
**Oral evidence (notes for) Public Hearing at Traralgon 14/11/2001**

Basslink Oral Evidence -

a commercial opportunity in the National Energy Market

Duke Energy Gas Pipeline electrolysis damage.

4500 tonnes of copper - better uses

Western Route - (eg Woolnorth to Portland) avoids Hazelwood constrained by overloading of EHV transmission line (Hazelwood -> Melbourne) with the proposed eastern route. Possibly also mitigates electrolysis problems for gas infrastructure. Strengthens the mainland network by bypassing the heavily loaded Latrobe Valley to Melbourne EHV links. Reduces network losses on the mainland at critical peak times.

The world changed on September 11th: security vs. terrorism

Earth's ocean/atmosphere is a closed system = "gas chamber" holocaust for the victims of global warming (all of us!!).

"Greenhouse neutrality". My earlier submission fell into the "trap" - the mind set of the proponents - that regards Basslink plus 400 MW of Tasmanian wind farms as a greenhouse neutral exercise. A more honest and reasonable interpretation would be that \$500 million spent on Basslink plus \$600 million for the wind turbines is \$1.1 billion of new investment that results in an EXTRA 2 million tonnes of CO2 annually from mainland coal-fired power stations' increased utilization. This is not a sensible way to spend precious capital on new infrastructure in an era when real emission reductions must be implemented as a matter of urgency.

## *Introduction*

- <sup>1</sup> **M. Gunter** = “entrepreneurial” windsmith, non-aligned to industry or any political party; owner of a domestic solar water heater for 20 years (?kWh/pa); travelled from Melbourne today under biodiesel power: *living sustainably is a real choice NOW, not in the future.*
- <sup>1</sup> **Earlier submissions** : rationale = not rational; apportioning of commercial risk: public underwriting must not happen again. Greenhouse ignored. Stated<sup>1</sup> electrical losses not compatible with industry standard TLF: is the earth/water return path of Bass Strait a “Basslink facility”? Does the 29 MW loss of the Basslink facilities translate to a TLF of  $629/600 = 1.0483333$  ?? (any competent transmission engineer **must** be able to clarify this vital question for the Joint Advisory Panel, and for the public.)
- <sup>1</sup> **Electrical losses** were explained **ONLY** in terms of how the market deals with them. Greenhouse implications totally ignored. This must be rectified.

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<sup>1</sup> [http://www.accc.gov.au/electric/Tasmania\\_applications\\_package.zip](http://www.accc.gov.au/electric/Tasmania_applications_package.zip)

## “A Commercial Opportunity in the National Electricity– Energy Market”

### #1. Monopolar HVDC Undersea Cable Linking Tasmania to the Mainland:

- 1 \$500 million capital expenditure,
- 1 \$50 million return p.a. for the investors;
- 1 4,500 tonnes of copper (*whose copper?*) sunk in Bass Strait;
- 1 alleged energy security for Tasmanians during a drought
- 1 **Pseudo-competition:** only two new “entrants” (regarding Basslink as a “virtual generator” on each side of Bass Strait)

## “A Commercial Opportunity in the National Electricity– Energy Market”

#2. 200,000 solar water heaters (one for every Tasmanian home, school, office, sporting venue):

- 1 also around \$500 million investment,
- 1 with a 10% return to the owner(s),
- 1 using less than 4,500 tonnes of *Australian* copper.
- 1 Demonstrably provides terrorist-proof energy security during a drought, by conserving massive amounts of hydro-generation water every sunny day, especially during hot summer droughts. **Very hard to sabotage.**
- 1 200,000 new entrants in the energy market: *economic bypass of existing markets is not only legitimate, it is the BEST form of competition:* consumers are enormously empowered when they become active market participants.

## Greenhouse Neutrality Revisited

My submission of 31 August re the Draft IAS accepted the basic premise of the proponents that X GWh of northbound non-fossil electric energy (hydro plus proposed wind) would fully offset X GWh of fossil power from the mainland, and result in the interconnector being “broadly greenhouse neutral.”

I now believe that I fell into the trap of the proponents’ mind-set regarding greenhouse neutrality. \$500 million for the link, up to \$750 million for 500 MW of mooted wind farms at Woolnorth is not in fact neutral, it is risky capital expenditure that costs not only \$1.25 billion, but also an extra 2 million tonnes of Australian greenhouse gas emissions annually.

**A rigorous examination of the neutrality claim requires some realistic and genuinely sustainable options for comparing to the link:**

The proponents have already packaged Woolnorth and Basslink in their allegedly neutral scenario.

To counter, I propose the **genuine renewable energy benchmark** alternative scenario should also be a “package” consisting of **200,000 solar water heaters** for Tasmania (\$500 million, equivalent to 80 MW of continuous baseload power), and **300,000 solar-powered evaporative coolers for Victorian households** (costing say \$300 million, and obviating the need for around 600 MW of peak summer system demand). As a competitive market empowerment strategy for half a million new market entrants, it should be warmly welcomed by the ACCC, and all jurisdictions, so it should also qualify Tasmania to attract the Federal millions of competition policy inducements, just the same as Basslink. Both sides of Bass Strait are already “linked” in the sense that there are huge amounts of unexploited renewable energy resources on both sides: **Our rooftops are the biggest stranded asset in NEM.**