



O'Connor Post



SECURING AUSTRALIA'S ENERGY FUTURE

SHOULD CONSUMERS AND BUSINESS PAY TO FIX THE CLIMATE?

Since it is Governments which, over the years, set our energy consumption policy and built the power generation facilities now blamed for carbon emissions, why is it now the right of Government to propose an \$11bn taxation system, in the guise of a carbon trading scheme, upon the people and businesses of Australia, which may or may not fix the problem of greenhouse emissions?

Surely Government should first research the possibility and practicality of producing and funding a solution that in fact might lower energy costs in future years, whilst correcting our CO₂ emissions imbalance and ensuring certainty of energy supply for the future generations.

Such a solution exists and is explained in the following pages, both in terms of renewable energy production and distribution and how this energy resource can be utilised to fuel our personal and commercial transport fleet in the future, thus removing Australia's reliance upon imported liquid hydrocarbons.

The Rudd Government's Emission Trading System (ETS) has only one certainty which is a substantial cost imposition upon all sectors of Australia. This imposition will cause many industries to cease to be viable, resulting in their closure or movement offshore if they are unable to pass these increased costs onto consumers. **In the case of essential electricity the Conservation Foundation has estimated that the increase in electricity charges per annum is between \$240 to \$300 to the householder.** The uncertainty of achieving emission reduction turns to high farce when, in

response to the threat of industry closure and loss of future investment in export industries who are price takers, the Rudd Government talks of exemptions and compensation and/or low level per tonne of CO₂ charges for emission certificates which visiting British Emission Trading Expert Liz Bossley (Aust 4/8/08) said "would not create incentives for new clean coal technology" which will cost approximately \$40.00 per tonne of carbon to install and operate.

In other words those companies which remain will simply pay the tax and pass it on but continue emitting.

The only outcome is increased inflation.

Clearly, for an ETS to work it must be universal and harsh enough to drive change.

Then there is the further question of the global benefit arising from this form of economic hara-kiri.

Were the Rudd Government to simply close Australia down world emission would fall by 1.4%. In other words, unless the major emitters also take drastic action, nothing that Australia does will have any effect on the future climate of our continent.

Liz Bossley gives us advice on this matter when she urges Australia to get on with an ETS without delay "because (to wait) to bring the US in, to bring China in, to bring India in and try to get them all capped is just not going to happen."

Nevertheless, Australia has a responsibility to demonstrate its intentions to the world by taking positive action on emissions.

Of greater importance is to have a response that, instead of being negative to our energy needs, actually provides

a positive outcome, more particularly for future generations.

Whatever your view about climate change, the reality is that growing global demand for energy arising from increasing population and prosperity will put unacceptable demand upon our traditional and finite energy resources. The first response will be continuing price increases with the CSIRO recently predicting \$8.00 per litre for petrol.

An increasing percentage of renewable electricity would allow for the economic manufacture of hydrogen as our next fuel of mobility.

Every renewable option requires back up. The predictability of tidal movements makes coal fired generation the ideal partner.

Modern Bipolar HVDC transmission can provide the linkage. An initial investment of approximately \$10bn by Government can introduce this project, boosting Australia's installed generating capacity by approximately 10% from a zero emissions perpetual resource — the tides of the Kimberleys.

The responsibility of Government is to address this problem in its response to Climate Change.

The development of an interconnection of Australia's largest perpetual tidal resource to our existing transmission networks and its existing low cost coal fired generators provides a solution to both problems.

Wilson Tuckey

The Kimberley Coast - A Perpetual Resource

Australians should not be hostage to volatile world energy markets.

Our natural renewable and carbon resources can be partnered to meet our climate change responsibilities and ensure the living standards of future generations without additional taxes or higher petrol prices.

The Kimberley tidal region can produce over 6 times Australia's present electricity consumption



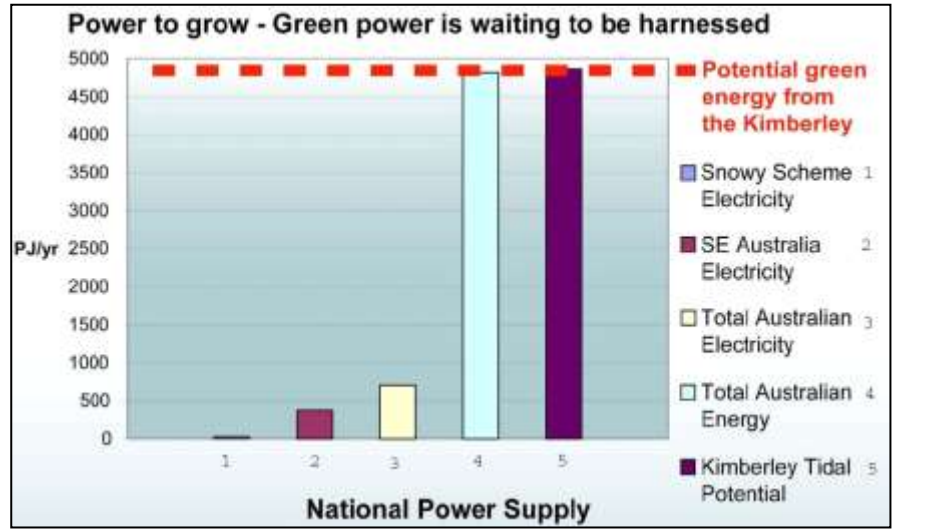
inside...

How do I fuel my car if petrol gets to \$8.00 per litre? ...





Estimates of the Kimberley energy resource are best identified by this bar graph prepared by CSIRO.



The World Energy Council independently selected two inlets in the Kimberley:

Prospective Sites for Tidal Energy Projects

Inlet	Mean tidal range	Basin area (km ²)	Installed capacity (MW)	Approximate annual output (TWh/year)	Annual plant load factor (%)
Secure Bay (Derby)	7.0	140	1 480	2.9	22
Walcott Inlet	7.0	260	2 800	5.4	22

Potential Tidal Power Projects (courtesy of World Energy Council).



Just two inlets — Walcott and Secure Bay in the Kimberley are capable of providing nearly 10% of Australia's existing installed electrical generation capacity or 120% of WA's Synergy capacity.



Tidal Power is not new.

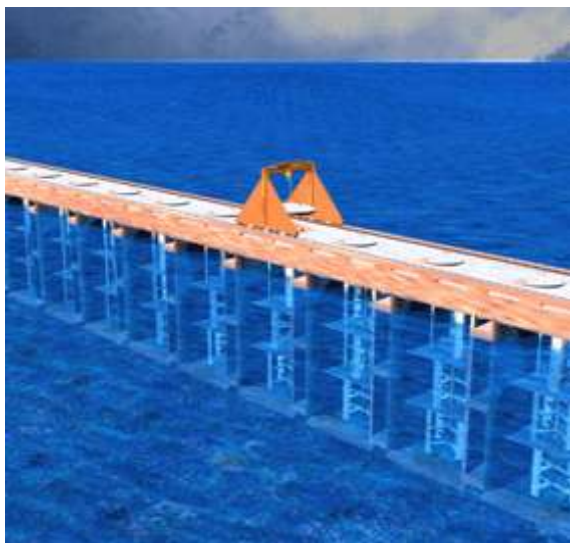
The harvesting of tidal power has been practiced in France at La Rance at a magnitude of 240mw for over 40 years that is 6.89% of Collies installed capacity.



La Rance Tidal Power Station during and after construction (Image courtesy of [Popular Mechanics](#)).

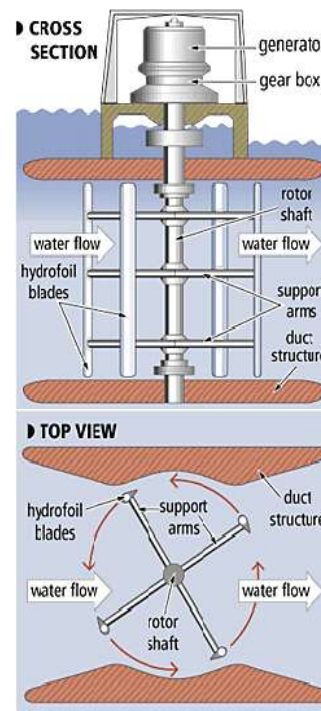
New Generating technology is more efficient and environmentally friendly.

The Tidal Fence Concept:



Artists impression of a tidal fence in operation (Image courtesy of [Blue Energy Canada](#)).

- As is obvious this form of generation can be introduced incrementally and can allow for shipping channels, marine species entrance and egress.
- By maintaining the free tidal flow as compared to the use of barrage walls, the problems of silting and interference with marine animal breeding and feeding programmes and even access for vessels is significantly eliminated.
- Endorsed in 1994 by the Executive Director of the David Suzuki Foundation, Jim Fulton in a letter to the Premier of Canada.



- The mechanical construction of the actual generators is as shown.
- The concept of a vertical turbine allows for the generator to be located well above high water levels thus simplifying servicing.
- The hydrofoil blades allow marine life to pass - much like a revolving door.
- Australia could become a world leader in manufacturing this technology as compared to competing in the overcrowded market of wind power technology.
- Australia has all the raw materials required.
- The technology has been evaluated and endorsed by leading North American private engineers and government agencies.

Source : [Renewable Energy and Ethical Investment](#). Copyright ©1997-2008 Blue Energy Canada Inc. All rights reserved

Comparison of "Installed Capacity" of these two inlets with Australia's Total "Grid" based generation.

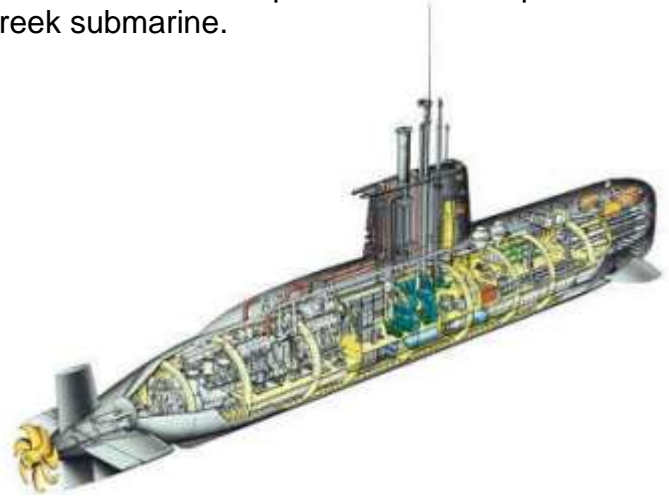
	Australia Source: ESN (Australian Energy Supply Association)	Western Australia Source: Verve Energy	Tidal Project Source: WEC	% of National Grid Total	
				WA	AUS
Installed Capacity	50GW	3.4GW	4.3GW	120%	8.6%
Total Generation pa	226TWh		8.3TWh		3.7%

How do I fuel my car if petrol gets to \$8.00 per litre?

Hydrogen can fuel motor vehicles both as a supplementary fuel to reduce petrol or diesel consumption and clean up the exhaust or through new hydrogen fuel cell technology that fuelled 3 Perth buses and this Greek submarine.

“There is presently enough hydrogen produced around the world to fuel 200 million fuel cell vehicles”.

(Air Products USA Supplier to the Greek Submarine Project).

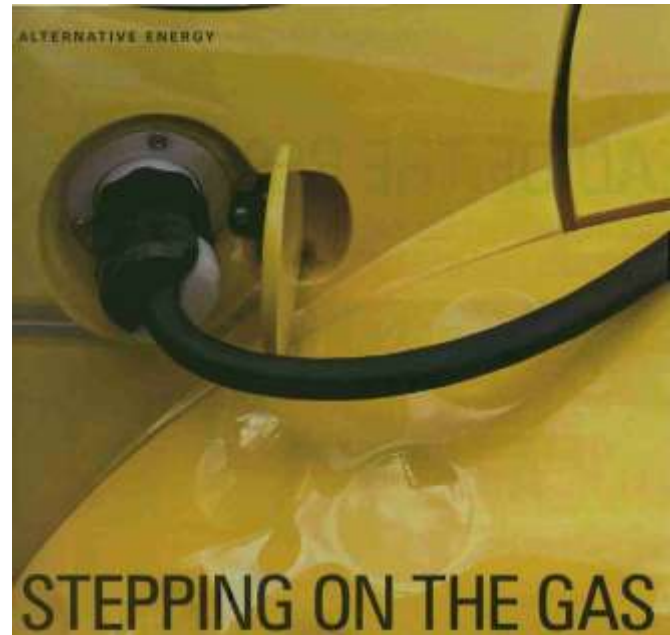


Hydrogen is most easily produced from water by electrolysis utilising mains electricity or renewables such as:

Solar for remote service stations and rural properties.



This CSIRO invention can produce enough hydrogen in your own garage to fuel a fuel cell car to travel 1000ks per week.



Containerised package for larger service stations.



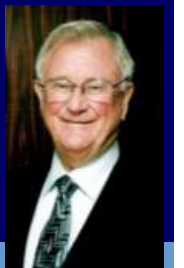
Mains power provided by the tides will produce environmentally clean Hydrogen.

Containerised installation in Amsterdam used to fuel public buses similar to those which operated in Perth.

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