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Secretariat  
Finance and Expenditure Committee  
Parliament House  
Wellington

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## **nzcid submission on the climate change (emissions trading and renewable preference) bill**

The New Zealand Council for Infrastructure Development <sup>1</sup> submits that Part 2 of the Climate Change (Emissions Trading and Renewable Preference) Bill be deleted. NZCID considers the proposed moratorium on thermal generation will place unnecessary risk on security of electricity supply at competitive prices, have a chilling effect on gas exploration, prolong dependence on Huntly coal fired generation and will potentially mean more carbon emissions than might otherwise be the case.

### **industry concerns deserve recognition**

This Bill has been introduced with limited time for consultation and in the face of serious concerns having been raised by leading business sector organisations representing many sectors of the New Zealand economy.

The Council notes and agrees with industry concern at the moratorium expressed in an open letter to the Ministers of Finance, Energy and State Owned Enterprises on 1<sup>st</sup> November 2007. This letter was signed by the Chief Executives of the Auckland and Wellington Chambers of Commerce, The Employers and Manufacturers Association (Northern), The New Zealand Business Round Table, The Major Electricity Users Group, the Greenhouse Policy Coalition, the Petroleum Exploration and Production Association of New Zealand and the Wood Processors Association of New Zealand.

### **encourage low emission generation**

NZCID considers the rationale behind the Bill is flawed. Rather than placing a ban on thermal generation, as proposed, government policy and any associated legislation should provide leadership and guidance on consenting both renewable and "low emission" electricity generation - potentially allowing efficient gas plants in the investment portfolio as well.

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<sup>1</sup> NZCID is a non profit organisation. Members comprise a diverse range of leading private and public organisations including infrastructure equity owners, financiers, constructors, service providers, public sector agencies, and major infrastructure users. Information on the Council, its members, policy and work can be found at [www.nzcid.org.nz](http://www.nzcid.org.nz). In developing its policy position on infrastructure issues, NZCID consults extensively with its member organisations, undertakes workshops and seminars on policy and undertakes independent research. This submission is based on that work and represents the views of NZCID as a collective whole. It may not necessarily represent the views of individual member organisations, some of whom will be making their own individual submissions.

Under such legislation, thermal generation proposals could be required to demonstrate a positive net gain from an environmental point of view in order to gain approval. A test of this nature could potentially enhance security of supply, encourage competitive energy supply prices, contribute positively to developing indigenous gas markets and have positive environmental and community benefits.

Efficient thermal generation can make a very positive contribution to reducing carbon emissions. For example Genesis Energy recently announced a 40% reduction in carbon dioxide emissions in October, compared to the same period in 2006. The majority of the drop was a result of switching almost half of the thermal electricity generation from the coal-fired Huntly Power Station to the new 400MW e3p combined cycle gas turbine. Efficient gas fired generation in and around Auckland might replace dependence on Huntly coal generation and reduce pressure on transmission capacity into the region. With a ban on thermal generation, efficient gas plants like e3p will be precluded or only infrequently used as a back up, while extended use of the Huntly coal fired plant to ensure continued base load capacity is probable.

### **potential delays to renewable generation capacity risks security of supply**

Without Huntly, security of electricity supply will be dependent on variable renewable energy capacity and the associated transmission network being delivered on time to meet demand.

The reality is that New Zealand's track record in timely delivery of major electricity projects is lack lustre at best. Tortuous planning, approval and consents processes and the complex regulatory steeple chase associated with transmission upgrades are key issues which affect timely delivery of renewable energy projects. Whereas gas plants have a relatively small footprint, wind farms and supporting transmission capacity can have significant community impacts.

With increasing pressures on land and water rights, a complex regulatory environment managed by a multiplicity of agencies, an uncertain transition path from thermal to renewable energy, together with uncertainties about gas discovery, gas prices and carbon pricing, its not surprising that uncertainties about the investment horizon persist. All of these issues have significant impact on maintaining security of supply and all must be resolved for a renewables only strategy to be realised.

### **lack of transparency about cost implications**

In addition to disquiet about security of supply, NZCID is concerned that the potential cost impact of the proposal including the cost of additional transmission investment which has not been explained. Nor has there been any analysis of the robustness of the proposal to a scenario where New Zealand achieves very high rates of GDP growth and hence higher energy demand forecasts.

As noted in the regulatory impact statement, a moratorium could increase electricity prices if the assumptions underpinning the NZES were to prove to be overly optimistic. The identifiable direct costs of this measure are the additional costs for the Electricity Commission and participants to comply with the process. The indirect costs of the measure are the forgone opportunity costs of cheaper fossil-fuelled generation if a major gas find is made. Whether these forgone opportunity costs are potentially significant or not will depend on the extent and duration of the gas find, and any flow-on to reduced hydrocarbon exploration and development and the costs of renewable generation.

We note that the NZ Energy Strategy projects significant potential for renewable electricity at competitive prices. If this is the case, renewable energy will be the preferred energy source and firms will be disincentivised to invest in thermal power stations.

On the other hand, research undertaken by the Ministry for Economic Development as set out in the Energy Outlook generally indicated much lower potentials for renewable energy and concluded clearly that a renewables future was risky from a price security of supply point of view.

In respect of the renewable energy scenario page 102 of the Energy Outlook concluded:

“The bottom line on the Renewable Electricity Case is that it could be done, and the greenhouse gas emission reduction would be significant. It would, however, be costly in terms of higher electricity prices. In fact, it would be costly enough that it would be likely to result in the loss of the aluminium smelter and perhaps some other heavy industry (see Chapter 10). (This case did not, however, assume any impact on industrial demand.) There might also be electricity security issues with a system so dependent on hydro and wind, both of which are subject to considerable natural variation.”<sup>2</sup>

The analysis concluded that adding additional medium probability renewable capacity reduces prices but potentially sacrifices legitimate local environmental concerns. In addition to the consenting issues facing renewable generation capacity, there are major risks over security of water rights and the potential impact on existing and future hydro capacity.

The principal determinants of generation costs and the consequential electricity generation mix will be dependent on the discovery of gas for thermal generation on the one hand and the ability to gain access to prime renewable energy sites at an acceptable cost on the other. In the event that access to prime sites, water rights and timely consent processes continue to be problematic, the fundamentals of the renewable energy strategy are significantly undermined.

The importance of the latter was clearly demonstrated by Contact Energy's announcement last year of a potential \$2 billion renewable generation investment programme conditional upon a streamlined consenting process being put in place for such projects.

### **allow the market to decide**

In our view an appropriate response is to allow the market to decide the appropriate diversity of generation sources with government intervening only to fix any clear market failures. This Bill is a very heavy-handed approach particularly when the government intends to introduce a price on green house gases which should incentivise otherwise marginally economic renewables over thermal in any event.

Less tangible, but nevertheless important, will be the chilling effect the proposal will have on petroleum exploration investment in New Zealand. Even the assumed modest rate of new gas discoveries to continue to meet current non-thermal generation gas demand may be at risk.

The adverse effect on attracting investment is likely to be wider than just the petroleum industry. If this Bill proceeds New Zealand will be the only country in the OECD and probably the world to limit new base-load thermal generation. The international capital market can be expected to view the proposal as a significant unpredicted and unjustified intervention and hence will increase our sovereign risk.

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<sup>2</sup> Extract from New Zealand's Energy Outlook, Ministry for Economic Development, September 2006 pp94-97

As it stands, the proposed ban on thermal generation will place further question marks over the nation's ability to deliver secure supply of low emission electricity at reasonable cost. A more balanced market oriented approach which permits the use of efficient thermal generation is therefore recommended. For each of these reasons NZCID submits that Part 2 of the Climate Change (Emissions Trading and Renewable Preference Bill should be deleted.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Stephen Selwood', enclosed within a blue oval scribble.

Stephen Selwood  
Chief Executive