



**Submission to the Finance and
Expenditure Select Committee on the
Climate Change (Emissions Trading and
Renewable Preference) Bill**

29 February 2008

From

Contact Energy Limited

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Introduction

Contact Energy Limited (“Contact”) welcomes the opportunity to provide feedback to the Finance and Expenditure Select Committee on the Climate Change (Emissions Trading and Renewable Preference) Bill. By way of background, Contact is a significant electricity generator, as well as a major electricity and gas retailer, with customers across the country. As a thermal generator, Contact is an emitter of carbon dioxide and will be impacted by this legislation.

Contact’s specific comments about the Bill follow.

We wish to appear before the Select Committee.

For any questions related to this submission, please contact:

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1.0 SUMMARY OF CONTACT'S SUBMISSION

- 1.1 In Contact's view, there is a compelling case for renewable electricity generation in New Zealand. Renewables, particularly geothermal generation, are becoming more economically viable, particularly as the electricity prices rise to reflect the cost of CO₂ emissions which will result from the introduction this legislation. Contact has a \$2.5 billion investment programme in renewable generation over the next five years and has placed a large consented combined cycle gas-fired power project at Otahuhu on hold. Contact believes that through the introduction of the Emissions Trading Scheme the market will deliver the high renewables future that the Government seeks. In this respect, we do not see a need to legislate a moratorium on new baseload thermal generation.
- 1.2 Contact believes that New Zealand can achieve the Energy Strategy's 90 per cent renewable energy target by 2025 and supports this target. Achieving this target will require significant investment in renewable geothermal, wind and hydro generation, as well as flexible gas-fired peaking plant. Existing gas-fired baseload stations will need to reduce their output and the coal-fired Huntly station will need to move into a reserve role if the target is to be met.
- 1.3 Contact's views on the relative attractiveness of renewables over baseload gas stations are backed by real action. Contact has a strong renewable investment programme, has deferred an investment in a new baseload gas plant and has announced plans to construct a fast-start peaking capacity and a gas storage project, both of which will support renewables and make a major contribution to achieving the 90 per cent target.
- 1.4 Achieving the 90 per cent target will not be easy. Renewables must be consented quickly, the costs of building them must be competitive and

transmission investment to get the electricity to market will be required. The 90 per cent goal is an ambitious target and Contact believes the country needs the maximum flexibility to respond rapidly if enough renewables cannot be built in sufficient time to maintain security of supply.

- 1.5 The thermal moratorium in the Bill will increase security of supply risks. It introduces a new source of inflexibility, rigidity and timing risks into the electricity sector which will reduce the sector's ability to respond quickly to changing circumstances. Contact recommends the thermal moratorium be removed completely.
- 1.6 Contact emphasises here that while the company does not support the thermal moratorium, we support the objective of the Energy Strategy and its 90 per cent renewable target. Contact is underway with an investment programme that will help accomplish this objective but strongly prefers market-based pricing signals over regulatory intervention.
- 1.7 The 90 per cent renewable target cannot be achieved unless the electricity sector's largest emitter of CO₂ – the 1,000 MW coal-fired Huntly power station – is moved over time into a reserve role and its output replaced with renewable energy. The thermal moratorium as it currently stands would appear to allow the owner of the Huntly plant to shut all or some of the power station's four units and replace them with one or even two gas-fired baseload plants. Such an outcome would mean New Zealand could not achieve its Energy Strategy target of 90 per cent renewables – or indeed come anywhere near achieving the goal.
- 1.8 Our analysis is that if Huntly was replaced by gas rather than renewables then the country could achieve at best 78% renewable energy.

- 1.9 If the thermal moratorium is to continue, Contact has two important recommendations to improve how the thermal moratorium works. These are:
- i. remove clause 62(G) (1) (e) – the clause Contact has termed the “old for new clause” which allows old thermal plants to be replaced with new thermals. As stated, the 90 per cent target will not be reached if this clause remains.
 - ii. change the moratorium from being a blanket ban on all new thermals to a targeted moratorium on new baseload plants only
- 1.10 Contact supports the Emission Trading Scheme (ETS) as a market-based approach to setting a CO₂ emissions price.
- 1.11 The ETS needs to accommodate the concept of gas storage. Since the introduction of the Bill, Contact has announced a \$200 million investment to develop a gas storage facility utilising a depleted gas field. This is a first for New Zealand, and is very important to the 90 per cent target. The country does not have any significant gas storage capability and current gas contracts have onerous ‘take or pay’ provisions which lead to gas being burned when market conditions might not support it. Having gas in a storage facility will enable the flexibility for that gas to be used as and when it is needed. The Bill must ensure that emission permits need not be surrendered until gas that has been stored is consumed and CO₂ actually emitted. Failure to do so will impact on the economics of gas storage which is a vital part of a high renewables future for New Zealand. A functioning gas storage facility is critical to effectively operating gas-fired peaking plants to support a growing renewable base, and to being able to decrease the output from current baseload gas plants over time.
- 1.12 Contact supports the ability of large emitters to be able to opt in and become directly liable for their own emissions. Direct liability will give Contact strong incentives to manage this liability so as to minimise the

company's costs and emissions. We have some minor points of clarification on how the opt in will work in the appendix attached to this submission.

- 1.13 Contact strongly supports the linkage of the New Zealand Emissions Trading Scheme into global markets. New Zealand will always be a small market, and this has significant implications. Firstly, New Zealand will only achieve a liquid market by linking to global markets. In addition, other markets do not need to link to New Zealand. This means that New Zealand has to ensure that its Emissions Trading Scheme has integrity, transparency and credibility. If there are any questions of credibility then New Zealand units will either not be accepted globally or will be discounted.
- 1.14 The Bill prohibits the importation of some global credits - for example nuclear-based credits - and puts in place a process whereby in future other credits could be deemed ineligible for conversion to New Zealand units. This will create obvious uncertainties. If Contact buys certain credits globally, could they be retrospectively deemed ineligible? Contact supports the recommendations of the Carbon Trading Work Group facilitated by TZ1 that certain parameters be established upfront on changes to eligibility of credits (e.g. no retrospective applications and sufficient periods of notice)
- 1.15 The most contentious issue on eligibility of credits is whether 'hot air' Assigned Amount Units (AAUs) should be able to be imported. This will likely have an important bearing on the market price in New Zealand. The Government needs to make a decision on this quickly to avoid the current uncertainty. Contact has already put on hold initiatives to create CO₂ sink credits because the company felt the issue of whether hot air AAUs were included or not created too much future price risk. While including hot air AAUs may reduce the price for New Zealand units in the short term, the negative impact on the credibility of New Zealand units could be significant. In the long term, New Zealand is best served

by a highly credible market that maximises liquidity. Achieving this credibility should be the dominant criterion in deciding this issue.

1.16 Contact supports and draws the Committee's attention to the other recommendations of the Carbon Trading Work Group facilitated by TZ1 and the NZX. These include recommendations such as support for further work on introducing a domestic offsets scheme. This could increase liquidity in the market and encourage innovative emissions abatement outside the activities covered by the Emissions Trading Scheme. We also believe that the Bill should be designed to maximise the opportunities for New Zealand to build a competitive advantage in trading emissions units.

2.0 THE BILL'S THERMAL MORATORIUM IS NOT REQUIRED TO ACHIEVE THE ENERGY STRATEGY TARGET OF 90 PER CENT RENEWABLE ENERGY BY 2025

Contact supports the Government's New Zealand Energy Strategy and the vision of achieving 90 per cent renewable electricity generation by 2025.

Contact agrees with the general thesis of the New Zealand Energy Strategy that New Zealand does not need more baseload thermal generation at this time because of the country's wealth of renewable options, particularly in geothermal.

2.1 Contact considers that the market will deliver a high renewables future because:

- i. Renewables, particularly geothermal generation, make good economic sense - particularly as electricity prices rise to reflect the real cost of CO₂. Contact estimates there are significant geothermal, wind and hydro opportunities that are cheaper than, or at least competitive with, the long run marginal cost of new baseload gas plants, particularly when the importation of liquefied natural gas (LNG) is factored in.
- ii. New baseload thermal plants face a range of future risks, particularly in the ability to secure the required volumes of domestically-sourced natural gas into the medium term. Any reliance on importing liquefied natural gas (LNG) would carry significant future price risks, as LNG is to a large extent linked to the global oil price. Current global energy prices illustrate these risks.
- iii. Contact's actions speak for themselves. As a publicly-listed company with strong commercial drivers, we have thoroughly investigated the comparative risks and economics of further investment in baseload thermal generation versus renewable energy projects. Contact's commercial strategy has been clearly communicated to the market with

our decision to put Otahuhu C on hold was made well before the NZES was finalised).

- iv. A market price on CO₂ emissions will push Huntly, the electricity sector's largest emitter, increasingly into a reserve energy role. The ability to replace Huntly's 1,000 MW is a major opportunity for new renewable generation projects and represents a critical part of achieving the 90 per cent target.

On this basis, Contact does not believe a thermal moratorium is necessary. If CO₂ emissions are priced into the economy through the Emissions Trading Scheme, then economic forces will drive the market towards investing in renewables and fast-start thermal peaking plant, as well as ensuring that Huntly transitions into a reserve role. A high level of renewable generation should result.

As a point of principle, the Government should be cautious about regulating against specific electricity fuel types, or indeed any particular form of CO₂ emitting activity. The core objective of Government policy is a reduction in CO₂ emissions. Contact firmly believes this is best achieved by the market determining the price of emitting CO₂ and letting the market innovate to achieve emission reductions in the most efficient way.

2.2 THERMAL MORATORIUM CREATES RISKS FOR CUSTOMERS

In addition to being unnecessary, the thermal moratorium creates potential risks for our customers through introducing a new source of inflexibility and rigidity into the sector. This increases the possibility of security of supply risks. Ultimately this risk is borne by customers.

The electricity sector needs to be able to respond to changing circumstances as quickly as possible. The last few months provide ample evidence of this. Two recent significant events have altered the medium term dynamics of the

market – the decommissioning (or at least restricted operation) of the HVDC Pole One and the permanent closure of the New Plymouth power station.

Both of these factors demonstrate that fast-start thermal plant is needed in the North Island, ideally by the winter of 2010, to ensure peak demand can be met. Wind farms cannot provide a reliable source of peak capacity – the wind cannot be relied on to blow at peak times, and hydro takes too long to build. Geothermal is ideally suited to baseload 24 hour a day operation. Thermal capacity is essential, particularly in the North Island, for providing peak capacity.

Contact is planning to invest in exactly this sort of fast-start thermal capacity and has announced up to 300 MW to be built in Taranaki. Contact believes that as Huntly is moved into reserve and existing baseload gas is moved to firming roles, such plant will be critical to New Zealand's energy security. Yet such plant is currently covered by the thermal moratorium and would require an exemption under the Bill.

Meeting a 2010 winter deadline for Contact's planned peaking capacity is tight. The necessity to go through a process of gaining an exemption risks creating delays which could make meeting a winter 2010 date for plant operation difficult.

Contact's peaker project could be further delayed if Contact's exemption for its peaker plant (which the Government indicated would be forthcoming) is opposed or appealed.

Contact's peaker project would provide exactly the sort of additional North Island security of supply that is currently needed. The legislation should therefore ensure that it does not delay the completion and commissioning of projects such as these.

Achieving the 90 per cent renewable target will require rapid consenting of renewable generation projects, including use of call in powers under the

Resource Management Act. It also needs significant transmission investments of a scale the country has not seen for decades. Delays may occur in areas such as consenting or transmission investment that make achieving a high renewables future difficult, and the industry will therefore need to quickly develop baseload thermal options to preserve security of supply. Again the risk is that delays, caused by a need to seek exemptions, will put security of supply at risk. An upshot of this is that through delaying investment in peaking plants to support renewables, the country could end up having to build baseload thermals which will shut renewables out.

It's important to bear in mind that a baseload thermal plant has an operational life of 20 or more years.

Even though there is provision in the Bill for the Minister to fast-track an exemption if there is an emergency, such a decision would be open to judicial review. Also, the "emergency" must be forecast years in advance to give time to construct new generation. The most comparable process in the electricity sector is the requirement for Transpower investments in the national grid to be approved by the Electricity Commission. This illustrates the timing risks that could be introduced into the sector by the need to go through any exemption process.

Contact therefore recommends that the concept of a thermal moratorium should be dropped from the Bill given the risks it imposes on security of supply through reducing the industry's ability to respond quickly to changing circumstances.

2.3 IF THE THERMAL MORATORIUM IS TO REMAIN, THEN IT MUST BE IMPROVED

While Contact advocates the removal of the thermal moratorium, the company believes that if it is to remain, the way the moratorium operates must be improved.

In the following paragraphs Contact lists two specific suggestions on how the thermal moratorium could operate more effectively.

Before doing so, we detail how the 90 per cent renewable target could be met, as this has important repercussions for how the moratorium should operate.

2.4 THE ENERGY STRATEGY GOAL OF 90 PER CENT RENEWABLE ENERGY BY 2025 IS AMBITIOUS BUT ACHIEVABLE

The 90 per cent per cent target is ambitious, but achievable. Contact has undertaken detailed analysis of what it would take to reach this goal. In simple terms, the following would need to occur. In total this would amount to an investment programme of several billion in renewable energy and flexible peaking thermals over the next 15 years or so.

- i. At least 1950 MW (installed) of wind energy
- ii. At least 830 MW of geothermal
- iii. At least 1150 MW renewable energy from a source other than wind or geothermal. In the 2025 timeframe this would need to include one if not two large scale hydros
- iv. A scaling back of the output of existing baseload gas-fired stations
- v. Building of flexible fast-start thermal plant to provide firming for wind and dry year reserve – likely around 600 MW
- vi. Gas storage to allow greater flexibility in gas supply to support fast-start flexible thermal plant
- vii. The phasing out of Huntly from its current baseload role to a reserve energy role, and the replacement of the energy generated from Huntly with the renewable energy outlined in (i) to (iii) above.
- viii. A step change in demand response from customers.

Figure 1 shows a forecast of New Zealand's average energy in a scenario where the 90 per cent target is achieved, while Figure 2 illustrates the same scenario but during forecast system peaks).

Figure 1 : Average Energy Achieving 90 per cent Renewables by 2025

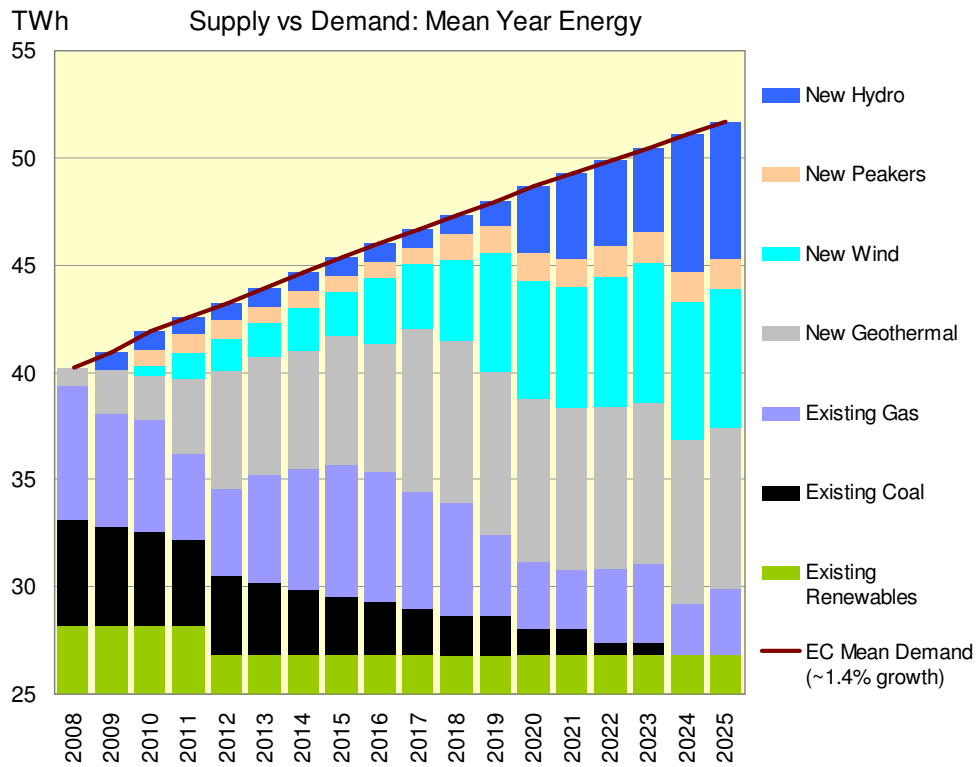
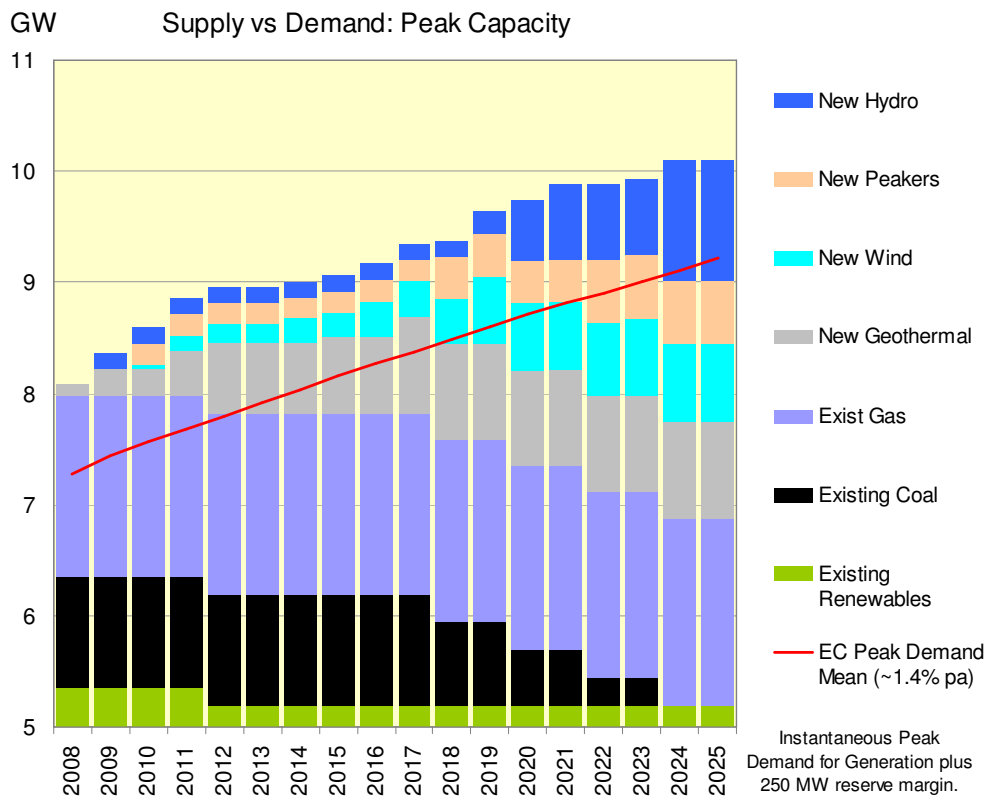


Figure 2 : Peak Capacity Achieving 90 per cent Renewables by 2025



Wind and geothermal play a major role, with coal (Huntly) transitioning into a reserve role and eventually being decommissioned. Existing gas-fired generation output decreases and a number of new peakers are built. Both figures show a major investment in hydro generation in the years after 2020.

Contact has announced a \$2.5 billion investment programme including around 470 MW of new geothermal in the Central North Island, 550 MW of new wind in the Waikato, up to 300 MW of fast-start peaking capacity and a \$200 million investment to develop a gas storage facility in Taranaki. This investment programme will be a very significant contribution to New Zealand achieving its long term Energy Strategy goals.

Contact has also emphasised that to achieve the 90 per cent renewable target the Government must provide significant support for consenting of renewable generation projects for example through national policy statements and the “call in” provisions of the Resource Management Act (RMA). Ensuring the national grid can support growth in renewable generation in a timely manner is another critical requirement.

2.5 THE 90 PER CENT TARGET CAN ONLY BE ACHIEVED IF HUNTLY IS REPLACED WITH RENEWABLES

The Huntly power station gives New Zealand a unique opportunity to replace a significant part of its thermal fleet with renewables. Huntly is a 1980s coal-fired plant and at 1,000 MW produces over half of the sector’s CO₂ emissions. Few, if any countries have so much of their electricity emissions tied up in a single plant. The plant is likely to, over the next 10 years or so, transition out of its baseload role in much the same way as Contact’s New Plymouth plant did before it was permanently closed due to asbestos (New Plymouth was 10 years older than Huntly).

If output from Huntly is replaced by baseload gas-fired stations then the 90 per cent target will not be achieved. This outcome is shown in Figures 3 and 4 from an average energy and a peak perspective respectively.

Figure 3 : Average Energy Gas Instead of Renewables for 2025

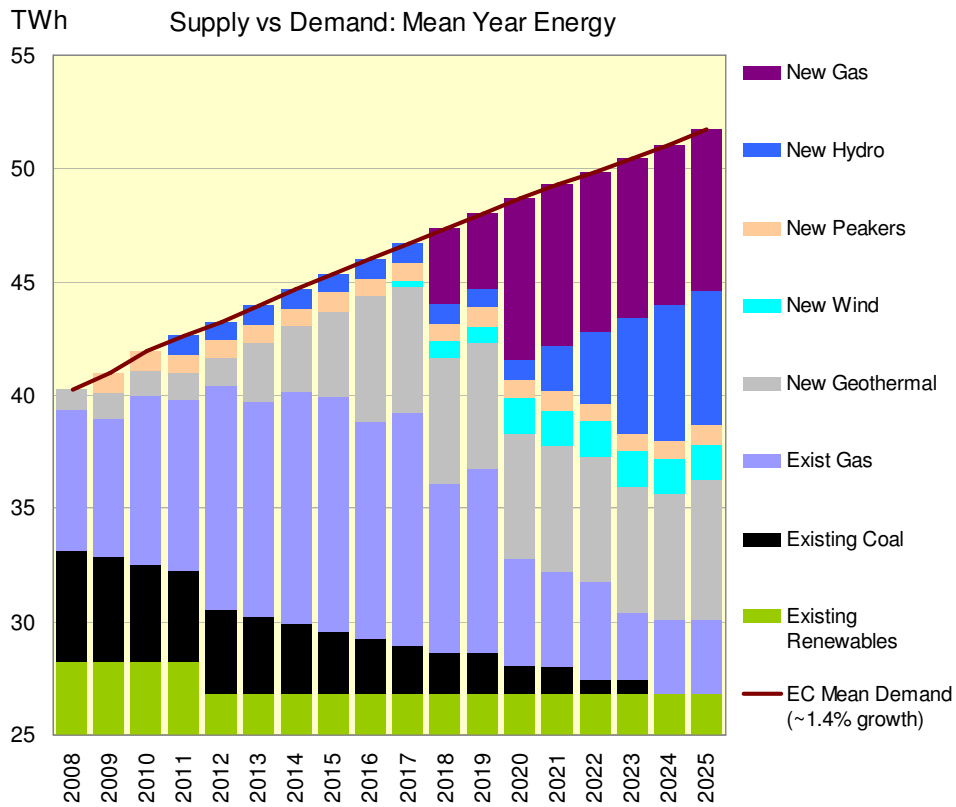
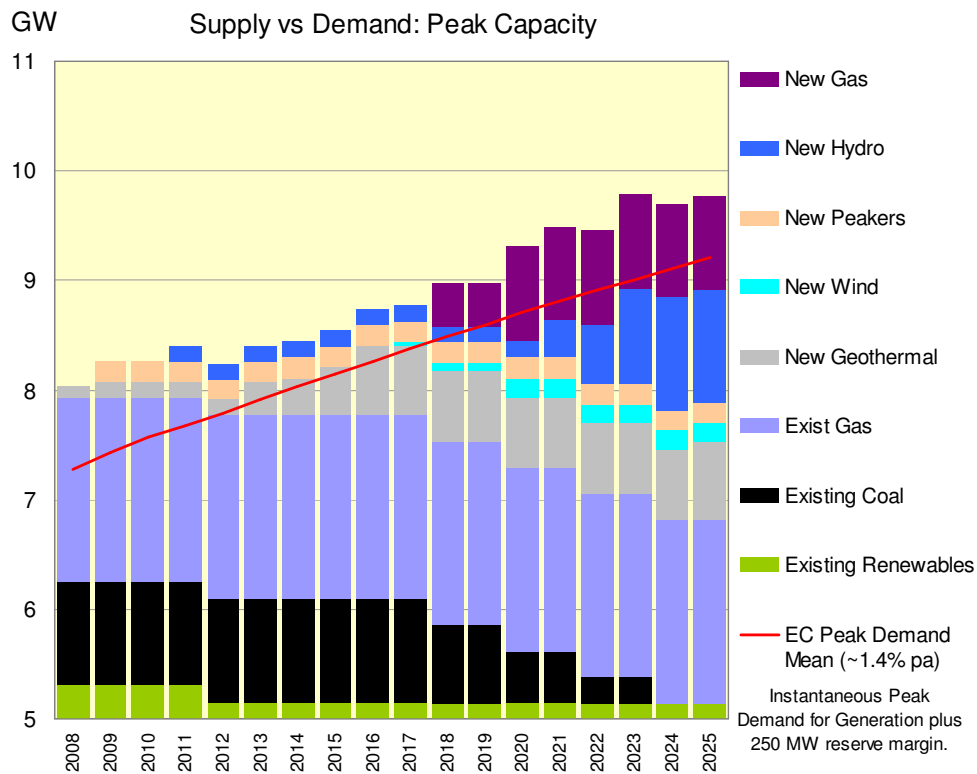


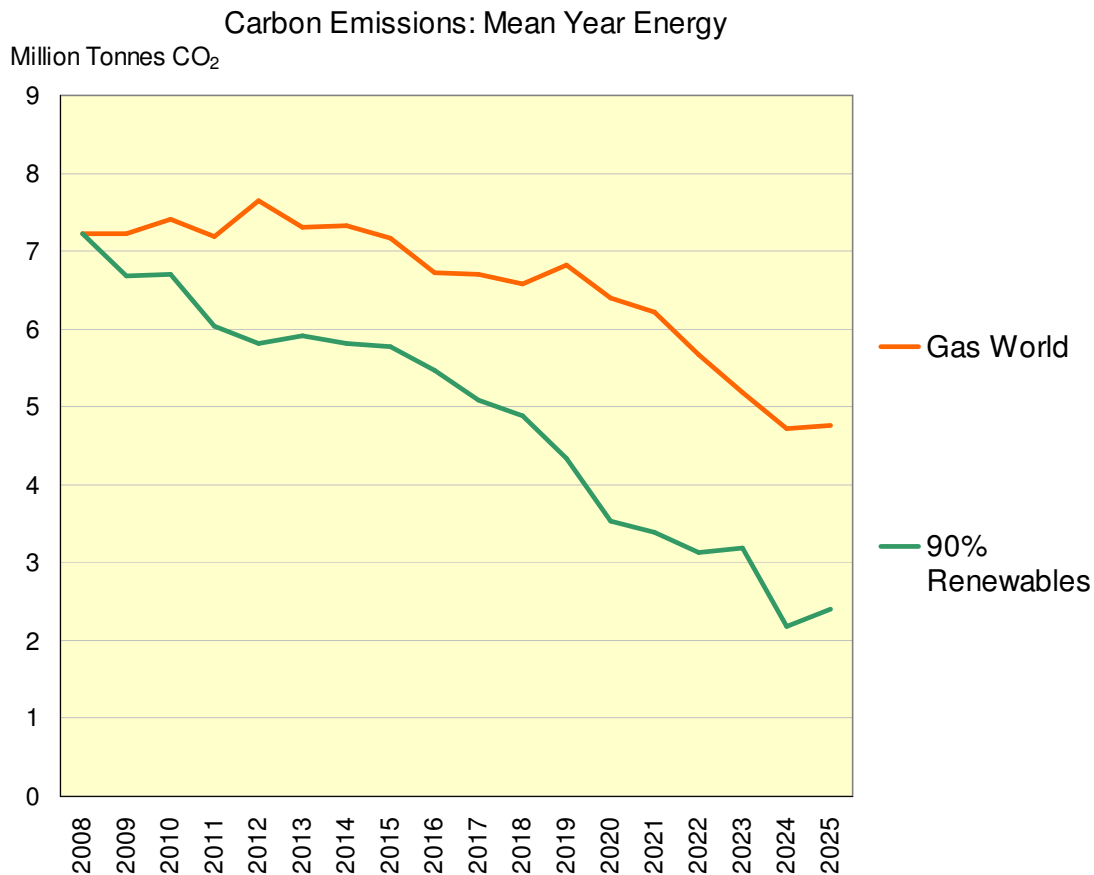
Figure 4 : Peak Capacity Gas Instead of Renewables for 2025



Some simple sums illustrate why this scenario would lead to the 90 per cent target not being achieved. Currently on a mean hydro year, 27 per cent of New Zealand's electricity comes from thermal generation. Of this, 12 per cent comes from Huntly. If a new 480 MW combined-cycle gas-fired power station (CCGT) was built with a load factor greater than 70 per cent (anything less is unlikely to be economic) this would displace around half of Huntly's 1,000 MW. Given the need to have assured gas supplies over the life of this 480 MW CCGT, it could be expected that its construction would require clear plans for gas imports and its required infrastructure. This LNG investment would be more economic if the rest of Huntly was displaced with another CCGT. Under this scenario, New Zealand could be 78 per cent renewable by 2025 - an improvement but certainly not 90 per cent renewable.

What replaces Huntly's 1,000 MW will be the single biggest driver of future emissions from the electricity sector. As is clear in Figure 5 below, replacing Huntly with gas would be good (a 34 per cent fall in total emissions), but replacing Huntly with renewables would reduce sector emissions by 67 per cent. The country needs to make sure it grasps this opportunity and replaces Huntly with a vigorous and focused renewable investment programme.

Figure 5 : 90% Renewables vs Gas Scenario by 2025



2.6 THE “OLD FOR NEW” CLAUSE IN THE THERMAL MORATORIUM IS INCONSISTENT WITH ACHIEVING THE 90 PER CENT TARGET

Contact refers to Clause 62(G) (1) (e) of the Bill as the “old for new” clause in that a thermal generator is able to build a new baseload plant if an existing thermal plant is retired. Specifically, the clause states that exempted plant must:

Be connected and operated in circumstances where an existing thermal electricity generation plant will be retired in whole or in part and the specified generation plant together with any part of the existing thermal electricity generation plant that is not retired –

- i. will significantly decrease greenhouse gas emissions (based on projected emissions assessed by the [Electricity] Commission rather than nominal capacity.)*
- ii. will not reduce security of supply margins.*

In the previous section Contact set out in simple terms that achieving the 90 per cent renewable target requires the electricity sector's largest emitter – Huntly – to be phased out of its current baseload role into a reserve role and that the energy Huntly would have produced as a baseload plant to be replaced by renewable output. If New Zealand builds a fourth baseload CCGT then the Government's energy goal will not be achieved.

This highlights a critical inconsistency between the Bill as drafted and Government policy. This inconsistency is as follows

1. The thermal moratorium is justified as being needed to ensure any new baseload plant does not 'crowd out' renewable investment and hence jeopardise achieving the Energy Strategy's 90 per cent renewable target (see page 11 of the preamble of the Bill)
2. Contact's analysis supports the conclusion that a major new baseload plant would make the 90 per cent target unachievable.
3. The thermal moratorium provides an exemption that a new baseload plant can be built if an old thermal plant is closed down. If such a plant were built, it could 'crowd out' the very renewables needed to achieve the 90 per cent target.

Contact believes that this inconsistency needs to be removed and Government needs to be clear and consistent in its goal. Either there is no thermal moratorium at all or, if there is to be one, then the moratorium should not include an exemption that defeats the fundamental purpose of the moratorium. The 'old for new' exemption should therefore be removed.

The only exemption for building a new baseload thermal plant that should be provided for in the Bill is for security of supply reasons. Clearly this must remain as keeping the lights on is the overriding goal for the electricity sector.

2.7 THE MORATORIUM SHOULD BE RECAST SO THAT ONLY BASELOAD PLANT IS COVERED

Currently the Bill applies a blanket prohibition on all thermal plant over a minimum 10 MW level. This means any new thermal plant is prohibited unless an exemption is granted. Contact believes this is poor regulatory practice in that it means all new thermal plant needs to go through a bureaucratic process even if it is clear that the proposed plant is “non-baseload”. As set out earlier, this increases the risk of security of supply issues occurring.

This amounts to ‘drift net’ approach to regulation in that it is unnecessarily imposed on all thermal plant in an attempt to capture only baseload generation.

A different approach would be for the legislation to define what is covered by the moratorium - i.e. baseload – thus leaving any other thermal plant not covered by the moratorium free to be developed quickly.

This could be easily achieved in the Bill by amending the definition of “specified generation plant” (i.e. the type of plant covered by the moratorium) in clause 62C to read

***“a specified generation plant means a baseload electricity generation plant that has a load factor or greenhouse gas emissions level above or more than prescribed limits*”**

Such an approach would require regulation to be passed that would be relatively precise on what the term “baseload” (or non-baseload) means. Contact believes that this can be readily achieved. It is Contact’s understanding that officials are already working on regulations to define

“baseload” in order to implement the Bill as drafted. The sort of precise measures that could be developed could be some combination of factors such as emissions per MW of capacity, emissions per annum, load factor, start-up time of plant or the size of plant.

Such an approach would also require an effective sanction regime. The Bill already contains this with a penalty regime which strongly deters breaches of the Act.

Under Contact’s proposed approach builders of thermal plant would need to assess themselves whether their plant was non-baseload as defined by the regulations. If they felt it was, they would build without the need to seek an exemption. If the proposed plant fell within the moratorium i.e. was a baseload plant, then an exemption would be required. Any prudent operator would seek an exemption if there was any question of their plant being close to the border of being deemed to be baseload.

If Government or the Electricity Commission felt that a plant without an exemption was covered by the moratorium, then they would enforce the Act’s penalty regime.

Only applying the moratorium to baseload plant would remove some of the timing and inflexibility risks of the thermal moratorium.

3.0 THE BILL NEEDS TO ACCOMMODATE THE DEVELOPMENT OF GAS STORAGE

Contact has announced that it will be developing a gas storage facility utilising the nearly depleted Ahuroa gas field in Taranaki which will cost approximately \$200 million. Gas storage in any significant way is a new concept for the New Zealand market, although gas storage facilities are common in other markets.

Without gas storage the New Zealand market operates essentially within a framework that sees gas being consumed as soon as it is brought to the

surface. There is minimal ability to store gas in the pipeline network, although this is small and short term. The Bill reflects this framework in that the liability for emissions occurs once gas is released into the pipeline network at the wellhead.

The Bill does not deal with the scenario that large volumes of gas are not burned and therefore no emissions occur. Instead the gas is transported to a gas storage facility and re-injected back underground to be stored for a period of years.

Before elaborating on this point it is worthwhile setting out some of the detail of the gas storage development. These include:

1. Contact has acquired from Origin Energy the rights to develop a storage facility at the nearly depleted Ahuroa gas field located near Stratford.
2. It is intended that gas will be transported from other fields, re-injected back underground into the field where it is safely stored and able to be extracted at optimal times.
3. To work, the field needs what is known as 'pad' gas. This is a permanent minimum level of gas needed to be kept in the field to maintain pressure and thus ensure the gas remains securely stored.
4. The pad gas is approximately 10 petajoules (PJ). A material part of the cost of the gas storage project is purchasing and holding this gas underground. Contact will need to purchase gas from other fields to inject into the field to achieve this 10 PJ 'pad'.
5. The economics of gas storage rely on the ability to purchase gas at lower prices (e.g. in summer) and then sell or use it at peak times (e.g. in winter). Contact will utilise the storage asset to provide flexibility to gas providers and users, including other generators.

Gas storage is an important development for the New Zealand market. It addresses a critical issue for a post-Maui gas market in New Zealand – that of loss of flexibility. For decades, the Maui field has provided not only large

volumes of gas, but also gas in a very flexible way. Consumers such as Contact could vary their take of gas to reflect changing seasons or very dry or very wet hydro inflow sequences. In dry years a great deal of gas is needed for gas-fired power stations. In wet years gas requirements are considerably lower. The Maui contracts enabled Contact to match supply and demand efficiently.

In a post-Maui world contracts from new fields like Pohokura do not have this flexibility. Contracts now contain take or pay provisions with much less ability to adjust demand to reflect changing circumstances. The implications for gas users are significant and mean that the efficiency of gas utilisation is reduced as gas is used to manage take or pay requirements. This can result in gas being consumed when it would be more efficient to defer consumption.

Gas storage is the natural “partner” of flexible fast-start peaking capacity. To maximise their usefulness, peaking stations need to be able to respond very quickly – such as when the wind stops blowing - and move to maximum output. Contact’s planned Taranaki peakers will be able to achieve full output within 10 minutes. Gas supply needs to be able to match this rapid change in output. Gas storage will allow fuel to be quickly released to the a peaker so that generation output can be increased rapidly.

Given that developing thermal peaking capacity is critical to both medium term security of supply and to supporting a high renewables future then the development of gas storage is a key building block for the New Zealand Energy Strategy. Contact’s peaker project and the Ahuroa gas storage project are expected to be complete in 2010.

3.1 ISSUES WITH THE BILL IN RESPECT OF GAS STORAGE

The specified “activity” defined in the Bill that renders a participant liable to purchase emission units is “mining natural gas” (schedule 3 Part 3). That is the process of bringing gas to the surface and injecting it into the pipeline network.

This illustrates the framework of the Bill that assumes that once gas is mined that it will be burned more or less immediately and emissions will result. This framework is reinforced by the provisions dealing with the ability for players such as electricity generators to opt in to become liable for emissions. In this instance the specified “activity” is the “purchasing” of natural gas (Schedule 4 Part 4).

Again the framework of thinking is that once gas is “purchased” then it will be burned and emissions will result.

The Act therefore equates either ‘mining’ or ‘purchasing’ of gas with the release of emissions from burning of gas. There is no concept that gas could be mined or purchased and then stored.

The implications for gas storage is that Contact would incur immediately the liability for emissions from gas that we purchase to store, whereas the burning of the gas may not occur for a period of months or years. In the case of the ‘pad’ gas this will be a large amount of gas that will be maintained in the ground over the decades of the storage project’s life.

Some simple sums illustrate the potential cost. For illustrative purposes if Contact on average stores 30 PJ of gas and the price of emission units is \$30/tonne then Contact would be paying around \$45 million for emissions for gas that is being stored for possible future use in generation. The holding cost of that money would have a materially negative effect on the economics of gas storage.

3.2 CHANGES TO THE BILL TO ADDRESS STORAGE ARE STRAIGHT FORWARD

Contact recommends that the Bill be changed such that gas that is extracted from the ground but then stored only incurs the liability to purchase emission units once the gas is actually burned and the CO₂ emissions occur.

This could be achieved by incorporating the concept of gas storage into appropriate definitions of the specified activities covered by the ETS or gas storage could be deemed to be a removal activity under Schedule 4 of the Act. This is a simple, but very important change that needs to be made to the Bill.

4.0 MARKET LIQUIDITY, TRANSPARENCY, CREDIBILITY GLOBAL LINKAGES ARE VITAL

New Zealand will always be a relatively small CO₂ emissions market. Policy makers need to ensure that the implications of this are well understood and factored into the Bill. There are two main implications:

1. By itself New Zealand will have very limited liquidity. Unless we are effectively linked to global markets then New Zealand CO₂ prices would be highly volatile and have higher long-term prices. Achieving liquidity by ensuring that New Zealand units and the New Zealand market has high standards of credibility and transparency should be the dominant goal in designing the ETS.
2. As a small market we will need the global markets but the global markets will not need us. Any doubts over the credibility of New Zealand units may see either off-shore markets choosing not to trade with New Zealand or only doing so at significant discounts. This reinforces the need for the New Zealand units to be viewed as having a high level of integrity.

4.1 WHAT CREDITS CAN BE IMPORTED INTO THE ETS

One of the most significant issues for the credibility of the ETS will be what credits can be imported and converted into New Zealand units, with the most contentious issue being the importation of 'hot air' air Assigned Amount Units

(AAUs) from Russia and the Ukraine. The Bill does not reach a view on this issue but instead prohibits some credits such as those derived from nuclear energy and puts in place a process whereby in the future certain credit types can be prohibited.

The Government needs to decide quickly on this issue. It is a major source of future uncertainty on the price of New Zealand units. This uncertainty has already led to Contact deciding not to proceed with some potentially innovative CO₂ sink activities in New Zealand. We are aware of other major emitters in other sectors also putting on hold innovative investments and initiatives for the same reason.

The issue is a tricky one. On one hand the larger the pool of eligible credits potentially the lower the overall cost of abatement. Importing hot air (AAUs) may mean New Zealand unit are priced at a discount to international levels with consequent benefits to end users be they electricity consumers, air travellers or drivers of cars.

But on the other hand hot air AAUs are highly contentious globally. Importation of hot air AAUs could affect the integrity, liquidity and the linkages between the New Zealand market and international emissions markets.

The interests of New Zealand customers are best served in the long run by an ETS that is beyond reproach in terms of credibility and transparency. Policy makers need to weigh up these factors. In Contact's view the decision should be driven by a clear view that in the long run a credible highly fungible New Zealand unit and the Emission Trading Scheme will best serve New Zealand customers.

4.2 CHANGES TO THE ELIGIBILITY OF OFFSHORE CREDITS NEEDS TO BE CAREFULLY MANAGED

The process whereby certain credits can be included or excluded from the ETS needs to be carefully managed. Markets dislike uncertainties and the

ability to alter the value of credits through decisions on eligibility is a significant risk.

Contact believes the Bill needs to incorporate as much certainty as possible. An important example would be retrospectivity. No emitter will want to find themselves in a position that having brought credits in good faith to find that they are no longer viable NZUs. Contact suggests that the Bill be amended such that any changes are not retrospective or if they are that credit owners are compensated.

Contact has participated in the Carbon Trading Work Group chaired by TZ1 and supports the report from that working party. This includes suggestions that there be sufficient periods of notice for any changes or minimum time periods before any changes occur.

4.3 ALLOWING MAJOR EMITTERS TO OPT IN MAKES GOOD SENSE

Contact supports an opt-in clause, limiting its application to major users of gas / coal such as power generators and industrials. This will avoid complexity further down the supply chain.

Contact already has systems for measuring and reporting emissions from geothermal generation, so the additional cost of extending its processes so it can “opt-in” for gas is small.

Contact seeks some clarification around the timing of electing to “opt-in” and the associated timing of obligations as set out in the attached appendix.

APPENDIX

A 1. EMISSIONS TRADING SCHEME

A 1.1 Market

It is Contact's view that for New Zealand to deliver on its objective of emission reductions at the least cost, it is fundamental that an effective emissions trading market is established, supported by a transparent regulatory environment. To contribute to this objective it is critical that the legislation provides a framework that encourages efficiency and competition through clarity about units of trade, transparent quality information, low transaction costs and access to units for trading (i.e. a liquid market)

A 1.2 Methodologies for calculating and recording emissions

Contact suggests that the methodologies used in the Bill for calculating and recording GHG emissions should be consistent with the methodologies that many councils already require when granting resource consents for thermal power stations. This may help to avoid having multiple methodologies and therefore keep compliance costs down.

A 1.3 Compensation to electricity consumers

Contact considers that compensation to consumers for the costs of the Emissions Trading Scheme should not inhibit price transparency. In order for the ETS to influence consumers' decision making, consumers must face the true cost of electricity, including the cost of emissions. Contact considers that direct assistance from Government social agencies like WINZ may better target those consumers who are most in need of help.

A 1.4 Period of Grace

Contact also supports having a period of grace on compliance penalties for the first year of compliance for each of the sectors. This will ease some of the

pressure faced by companies, especially those required to purchase units off the global CO₂ market.

A 1.5 Opt-in clause

Contact supports the inclusion of Schedule 4 “Activities with respect to which persons may be participants” in which persons can elect to become participants if they do the activities listed in Schedule 4, including:-

- Owners of, or holders of forestry rights/leases over, forests planted after 1989
- Producers who embed CO₂ in their products
- Major users of jet fuel used for domestic aviation
- Major users of coal and natural gas.

In addition to the list above, Contact recommends that the Bill be amended to also include activities such as gas storage. It is Contact’s view that for fuel storage (whether gas or coal) the Bill should reflect the combustion of the fuel as the point of obligation, rather than the purchase. Under the proposed legislation, companies purchasing large quantities of either coal or gas which they intend to store for future use, face an immediate obligation for emissions, even if the emissions will not be incurred for months (or in the case of gas, possibly years).

While Contact supports the inclusion of (and suggested amendment to) Schedule 4, we also seek clarity on:-

- The timing of electing to “opt in” and the associated obligations. It is Contact’s understanding that from the time a person notifies their intention to register to become a participant under Part 4 of Schedule 4, there is a one year time lag before the registration takes effect, and that in practice a Part 4/Schedule 4 participants obligations under the ETS would only take effect on or after the date on which the upstream participants obligations take effect under Schedule 3 (i.e. on or after 01 January 2010). Contact requests that this interpretation is confirmed as correct or an alternative clarification is provided.

- The timing of the obligation. Noting the one year delay between registration, and registration taking effect, Contact seeks clarity on the timing of the beginning of the compliance period (i.e. is it the date of initial registration, or the date twelve months later when registration takes effect). It would be appreciated if this could be clarified.

- What is meant by “natural gas purchased”. Within Part 4 of Schedule 4, there is a degree of uncertainty as to what is meant by “natural gas purchased”. It is logical that the quantity of natural gas purchased equates to the amount the downstream participant actually takes or possesses. Contact seeks clarification on this interpretation.