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Attention: Jenny Walton  
Electricity Commission  
P O Box 10041  
Wellington

Dear Jenny

## **SUBMISSION ON DEVELOPING EMERGENCY SECURITY OF SUPPLY PROVISIONS**

### **Background**

This submission is made by Comalco New Zealand Limited (*Comalco*), on behalf of Comalco Power (N.Z.) Limited (*Comalco Power*) and New Zealand Aluminium Smelters Limited (*NZAS*). It is made in response to the Commission's consultation paper titled *Developing Emergency Security of Supply Provisions*, prepared by Concept Consulting Group and dated November 2004 (the *Paper*) and the questions on this issue posed by the Commission on its website.

### **Introduction**

The Paper makes some very pertinent comments on security of supply and the operation of the normal market that Comalco wishes to briefly discuss before responding to the specific questions posed by the Commission. In particular, Comalco wishes to endorse much of the comment in section 6 of the Paper concerning the Commission's overall approach.

Comalco agrees that improving the normal market must be a priority for the Commission and that the Commission's primary focus in relation to security of supply must be to make the normal market work as effectively as possible. As the Paper correctly notes in paragraph 5.10, security of supply concerns would be significantly reduced in a well-functioning market. The report prepared for the Commission titled *Analysis of the state of competition and investment and entry barriers to New Zealand's wholesale and retail electricity markets* clearly indicates there is much to be done to improve the functioning of the market.

As Comalco noted in an earlier submission, and the discussion paper outlines in paragraph 6.15, there are likely to be significant quantities of distributed resource (e.g. back-up generation) that is not being deployed at times of high prices or security concerns for one reason or another. The Commission needs to assess the extent of these resources and facilitate their operation through normal market mechanisms. Freeing these resources will likely significantly contribute to supply security.

Comalco agrees with the emphasis in the paper on enabling the normal market to manage price and supply risks as much as possible and concurs that avoiding distortions to the normal market is a recurring theme in the GPS. The Paper correctly states in paragraph 4.7 that a failure by market participants to take ownership of their supply risks, and to enter into commercial arrangements to mitigate those risks, will only increase the size of the potential security problem. It is all the more puzzling then that consumers who have secured some or all of their supply either physically or contractually are then faced with higher electricity costs for dry-year security charges just because their secured electricity has been supplied through the gross pool.

**The Concept report suggests that the Commission should delay the use of emergency measures in a dry year until the risk of shortages has become very material, through the use of an emergency zone set below the minzone according to the implied cost of emergency measures.**

**Do you agree that emergency measures could be delayed until late in the piece and remain effective?**

Comalco agrees that the high-level approach proposed is reasonable. As Comalco sees it, the proposed approach gradually applies increasingly expensive measures as anticipated supply continues to fall below the minzone and reaches increasingly lower security levels. However, Comalco has concerns about delaying conservation measures as these usually take some time to gather momentum.

**Do you agree that it is appropriate for the Commission to signal that it intends to do this, so as to encourage participants to manage their own price and supply risks?**

It is absolutely vital that the Commission encourages participants to manage their own price and supply risks. Such management is part of the operation of a normal market.

The security of supply section of the GPS makes many references to the importance of minimising distortions to the normal market. It is very clear that the government has placed a high priority on this, as the Concept paper correctly reflects.

**How practical do you consider the principle that, emergency measures should not penalise participants (in this case potentially including end users) that have developed commercial arrangements and / or physical supply arrangements to cover risks during dry periods, and should not reward participants that fail to develop such arrangements?**

Not only is this practical, it is absolutely vital to the normal operation of the electricity market, to minimising risks to the security of supply and to improving the efficiency of electricity supply.

Participants who effectively self-insure all or part of their electricity requirements, either contractually or through ownership of generating assets, must not be penalised by any emergency measures invoked by the Commission.

Neither should those who do not take any steps to secure their electricity supplies be rewarded by any emergency measures.

This principle is fundamental to a security of supply policy that minimises distortions to the normal market, as required by the GPS. Penalising those who secure their supplies and rewarding those who do not will lead to an inefficiently lower level of investment in supply security by the normal market. Not only will this distort the normal market (contrary to government policy) it will lead to more frequent concerns about the security of supply and imposition of emergency measures.

It is therefore perverse that the recovery of costs for implementing the security of supply policy is to be levied across all wholesale purchases of electricity, irrespective of whether or not these purchases are secured by consumers through a binding contract or supplied by self-generation not directly embedded into the consumer. Such a levy design provides a disincentive to consumers investing in their own security, unless they can physically embed generating plant directly and thus reduce their purchases coming through the wholesale market.

This is contrary to the stated policy in the GPS that requires distortions to the normal market to be minimised. Further, paragraph 46 of the GPS requires that in developing and operating its security of supply policies, the Commission should (amongst other things) avoid ad hoc and discriminatory interventions. As discussed, the levy design is a clearly discriminatory intervention.

Paragraph 50 of the GPS clearly envisages market participants improving their own security of supply through contractual and hedging arrangements, amongst other mechanisms. Levying the costs of the security of supply policy across wholesale market purchases associated with such arrangements clearly imposes an inefficient tax on those who have acted in accordance with stated government policy.

**The Concept report proposes that the Commission facilitate a range of pre-emergency measures that would be available between the minzone and the emergency zone, followed by a series of emergency measures that would be applied when hydro storage falls below the emergency zone.**

**Do you support this approach to a dry year situation?**

Yes – this is the appropriate course of action, but more discussion is required concerning the impact of the GPS limit on contracted reserve energy.

**In particular, do you support the Commission acting to facilitate a range of pre-emergency measures?**

Yes – but a lot of this facilitation should be occurring to increase supply and demand response in the normal market. It must be a priority action for the Commission to improve the efficiency of the normal market, which will minimise the costs of the security of supply policy.

**Do the emergency options outlined in table 4 of the paper cover the full range of options that should be considered?**

Comalco is comfortable with the options presented, but other options presented during this consultation should also be considered.

**Do any of the options considered in the report have implementation and effectiveness issues that are not highlighted in the report?**

Yes - extended hot water cuts will not be popular. Given the increasingly slight differential between controlled and uncontrolled retail tariffs, consumers need little further persuasion to switch their hot water load to an uncontrolled rate. It is likely that the first time hot water is off for an extended period (or even threatened) some, perhaps many, consumers will switch to an uncontrolled tariff, thus muting the ability of this emergency measure to conserve electricity.

Controlled hot water load provides a valuable service to enhance system security and is regularly bid into the reserves market. The Commission should look at the likely costs and benefits of committing this resource to the emergency response plan – the proposed desktop analysis may be insufficient to properly quantify any net benefits.

Suspending the market presupposes that the Commission is in a better position to price and allocate resources. In 2001 and 2003, the industry with government was able to organise itself and operate in a way that avoided uncontrolled blackouts. There is little to suggest that this could not be achieved in the future, especially given all of the mechanisms that are being developed now to predict and manage threats to security.

Empowering the Commission now to suspend the market and direct participants signals a lack of confidence in the Commission's ability to manage this risk cooperatively with the industry. This sends entirely the wrong signal to would-be investors in the electricity sector and the wider New Zealand economy. The Commission needs to concentrate on facilitating the industry to cooperatively solve security problems.

**For the extreme option where the Commission looks to suspend or direct the market, how should the powers of the Commission be designed, including any limits and obligations associated with these powers?**

The subject this question seeks to address is worthy of its own consultation and Comalco encourages the Commission to undertake such a consultation. In the interim Comalco considers that any powers should not be able to be applied to electricity that has been physically or contractually secured as part of a consumer managing their own price and supply risks. As previously argued, an ability for the Commission to procure this electricity through legislation would provide a substantial disincentive to the ordinary market taking steps to manage these risks. This is contrary to stated government policy and would increase price and security risks, rather than reduce them.

**Do you consider it appropriate for the Commission to broaden the approach to include emergencies other than those brought on by dry periods appropriate? If so what thresholds would be appropriate to trigger the use of non-dry period emergency measures?**

Yes - the emergency situations that will require involvement of the Commission are those beyond the short-term abilities of the system operator to fully remedy. These are likely to include a major and sustained failure of either Huntly or the HVDC.

The thresholds will naturally fall out of the modelling done for each emergency scenario. Accordingly, the Commission should identify reasonably possible scenarios that would be beyond the ability of the system operator to remedy and model the likely impacts. These impacts will suggest likely thresholds and what emergency measures will be appropriate.

**Do stakeholders consider that the recommendations set out in the executive summary of the Concept report are an appropriate way to proceed with the next steps to implement emergency measures?**

Comalco assumes this question refers to the conclusions in the introduction to the Paper, on pages 13 to 15, and has the following brief comments.

The Commission needs to draw some clear distinctions between:

- the provision of contracted reserve energy to satisfy the 1 in 60 dry-year threshold;
- extra reserve energy contracted on a short-term basis to cope with an anticipated worse than 1 in 60 dry-year; and
- other, clearly non-reserve energy, measures.

The Paper does not make these distinctions clear and some of the discussion leads one to assume that the Commission could continue contracting extra supply and demand response until physically exhausting their availability, notwithstanding that the GPS places a limit on this reserve energy.

The desktop exercise to establish the merits of extended water heating cuts is insufficient. A proper analysis of the costs and benefits of this proposal needs to be done to ensure it does not result in a move by consumers away from controlled hot water loads to the detriment of normal system security.

### **General**

We would be happy to discuss any questions or comments you may have in relation to the points raised above. If you would like to discuss Comalco's comments further, please contact me.

Yours faithfully

**[unsigned as sent electronically]**

Michael Scotton  
Power Manager