



**TRANSPOWER**

*Keeping the energy flowing*

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Dear Sir/Madam,

In 2010 the System Operator conducted a technical review of the existing Automatic Under-Frequency Load Shedding (AUFLS) scheme to evaluate the scheme's ability to cover identified large risks given the changing nature of New Zealand's power system.

The technical review highlighted that while the current AUFLS system is sufficient for known risk it is likely to be ineffective at recovering the system from a number of high impact low probability events. The review identified the need to improve the way reserves are currently procured and utilised, and to research options for other products.

In addition, the commission of the new HVDC bi-pole control in 2013 has the potential to enable national markets for reserve products. The development of these markets needs to be informed by good engineering.

In light of the suggestions made in the AUFLS technical review and with a view of enhancing reserve market mechanism through the development of a national reserves market, the System Operator and the Electricity Authority, in line with the industry Common Quality development plan, agreed to undertake a review of the Under-Frequency Management (UFM) products; which include instantaneous reserves (IR), AUFLS obligations, and mandated generator and HVDC owner obligations.

The purpose of UFM review is to propose strategies and measures that offer the most reliable, secure, and cost effective under frequency management system in order to provide greater certainty on system integrity during major under-frequency events, and to operate an efficient market.

The paper attached sets out the scope and objectives of the UFM project, the methodology proposed, and the indicative timeline of the project.



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Due to the inter-dependency of under-frequency management products, the ongoing AUFLS review has been included in the UFM review and its scope is incorporated into the UFM project brief.

The System Operator has assigned Airin Alamsjah as UFM project manager. Any questions or comments should be directed to Airin. Her contact detail is as follows:

(04) 495 6988

The System Operator is inviting comments on the project brief by Friday 26 February 2011 which should be emailed to [airin.alamsjah@transpower.co.nz](mailto:airin.alamsjah@transpower.co.nz) or if desired sent to the address below.

Attn to: Airin Alamsjah  
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Your comments will be consolidated and is likely to be used for further discussion within the industry. Please advise if you wish your comments to remain confidential.

We look forward to receiving your feedback and your participation in the Under Frequency Management review.

Yours sincerely,

Kevin Small  
Investigations and Planning Manager  
System Operator  
Transpower New Zealand Limited



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## **Appendix 1**

1.1 Do you agree with the approach that the System Operator is taking with regard to the structure of the under frequency management work?

1.2 Is there any other work you consider desirable and relevant that the System Operator should include?

1.3 Do you have other comments on the contents of the paper?

1.4 Would you be interested in attending workshops and discussion on the topics addressed in the brief?