

Determination

Applications for Authorisation

Amendments to the National Electricity Code

Regional Pricing of Ancillary Services

17 September 2003

Authorisation Nos:

A40086

A40087

A40088

Commissioners

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Glossary

APC	Administered price cap
code	National Electricity Code
Commission	Australian Competition and Consumer Commission
CPT	Cumulative price threshold
CRA	Charles River Associates
Eraring	Eraring Energy
Ergon	Ergon Energy
FCAS	Frequency Control Ancillary Services
NCAS	Network Control Ancillary Services
NECA	National Electricity Code Administrator
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company
NGF	National Generators' Forum
Origin	Origin Energy
SRAS	System Restart Ancillary Services
TNSP	Transmission Network Service Provider
TPA	<i>Trade Practices Act 1974</i>

1. Introduction

On 27 March 2003, the Australian Competition and Consumer Commission (Commission) received applications for authorisation (Nos A40086, A40087 and A40088) of amendments to the National Electricity Code (code). The applications were submitted by the National Electricity Code Administrator (NECA), and relate to the modification of the arrangements for recovery of the costs of some frequency control ancillary services (FCAS) in the National Electricity Market (NEM).

The proposed code changes are based on recommendations put forward by Eraring Energy (Eraring), Hazelwood Power and the National Electricity Market Management Company (NEMMCO) following the joint NECA/NEMMCO forum on ancillary services in March 2002.

The proposed arrangements to be implemented via these code changes are specifically aimed at dealing with circumstances where part of the market becomes isolated and FCAS need to be sourced locally. These refinements are also intended to ensure that the revised arrangements for regional pricing of FCAS:

- enable economic purchasing of FCAS and extend the degree of co-optimisation between the energy market and FCAS
- more appropriately apportion costs between overlapping regional and market-wide requirements for FCAS
- are robust in a wide range of more complex circumstances. The proposed changes are intended to implement revised arrangements that will be able to cope with multiple local FCAS requirements, and overlapping local and global requirements
- provide a basis for further refinements to the cost allocation arrangements for FCAS.

Authorisation under Part VII of the *Trade Practices Act 1974* (TPA) provides immunity from court action for certain types of market arrangements or conduct that would otherwise be in breach of Part IV of the TPA, where the Commission concludes that the public benefits of the arrangements or conduct would outweigh any anti-competitive detriment of such arrangements or conduct.

The Commission has prepared this determination outlining its analysis and views on the applications for authorisation of changes to the cost allocation arrangements for FCAS.

Chapter 2 of this determination sets out the statutory test that the Commission must apply when assessing an application for authorisation. Chapter 3 contains an outline of the Commission's public consultation process. A background to ancillary services is provided in chapter 4. The Commission's analysis of the proposed changes is set out in chapter 5 and the Commission's determination is in chapter 6.

2. Statutory test

The applications were made under sub-sections 88(1) and 88(8) of the TPA.

Applications made under sub-section 88(1) of the TPA are for authorisation to make a contract or arrangement, or arrive at an understanding, a provision of which would have the purpose, or would or might have the effect, of substantially lessening competition within the meaning of section 45 of the TPA; and to give effect to a provision of a contract, arrangement or understanding where the provision is, or may be, an exclusionary provision within the meaning of section 45 of the TPA. Further, sub-section 88(6) provides that an authorisation made under sub-section 88(1) has effect as if it were also an authorisation in the same terms to every other person named or referred to in the application.

Applications made under sub-section 88(8) of the TPA are for authorisation to engage in conduct that constitutes, or may constitute, the practice of exclusive dealing in accordance with the provisions of section 47 of the TPA. Further, sub-section 88(8AA) provides that where authorisation has been granted under sub-section 88(8) and this particular conduct is expressly required or permitted under a code of practice, the authorisation applies in the same terms to all other persons named or referred to as a party or proposed party to the code. Authorisations may also apply to any corporation who becomes a party in the future.

The TPA provides that the Commission shall only grant authorisation if the applicant satisfies the relevant tests in sub-sections 90(6) and 90(8) of the TPA. While sub-section 90(6) and sub-section 90(8) relate to different types of anti-competitive behaviour, the tests are essentially the same.

Sub-section 90(6) provides that the Commission shall grant authorisation only if it is satisfied in all the circumstances that:

- the provisions of the proposed contract, arrangement or conduct would result, or be likely to result, in a benefit to the public
- that benefit would outweigh the detriment to the public constituted by any lessening of competition that would, or would be likely to result from the proposed contract, arrangements or conduct.

Sub-section 90(8) provides that the Commission shall grant authorisation only if it is satisfied in all the circumstances that the proposed provision or conduct would result, or be likely to result, in such a benefit to the public that the proposed contract, arrangement, understanding or conduct should be allowed.

The detriment to be considered is limited to detriment caused by a lessening of competition. However, consideration of public benefits is less restricted and public benefits recognised in the past include:

- fostering business efficiency
- industry rationalisation
- promotion of industry cost savings
- promotion of competition in industry
- promotion of equitable dealings in the market
- expansion of employment
- development of import replacements
- growth in export markets
- arrangements which facilitate the smooth transition to deregulation.

In considering whether or not to grant authorisation the Commission must consider what the position is likely to be in the future if authorisation is granted and what the future is likely to be if authorisation is not granted.

If the Commission determines that the public benefits do not outweigh the detriment to the public constituted by any lessening of competition, the Commission may refuse authorisation or grant authorisation subject to conditions.

The value of authorisation for the applicant is that it provides protection from action by the Commission or any other party for potential breaches of certain restrictive trade provisions of the TPA. It should be noted, however, that authorisation only provides exemption for the particular conduct applied for and does not provide blanket exemption from all provisions of the TPA. Further, authorisation is not available for misuse of market power (section 46).

A more expansive discussion about the Commission's authorisation process and the statutory test that the Commission applies can be found in the *Guide to authorisations and notifications*, Australian Competition and Consumer Commission, November 1995.

3. Public consultation process

The Commission has a statutory obligation under the TPA to follow a public process when assessing an application for authorisation.

The Commission received the applications for authorisation of the changes to the code on 27 March 2003. Notification of the applications and a request for submissions was advertised in the *Australian Financial Review* on 17 April 2003 and placed on the Commission's web site. Interested parties were asked to make submissions to the Commission regarding their views on the issues of public benefit and anti-competitive detriment arising from implementation of the proposed changes.

Submissions were received from nine interested parties (see Appendix A). All submissions have been placed on the Commission's public register, and are available on the Commission's web site¹.

The Commission produced a draft determination outlining its analysis and views on the changes according to the statutory assessment criteria set out in chapter 2. Following the release of the draft determination on 6 August 2003, the applicant and interested parties were provided with the opportunity to call a pre-determination conference in relation to the draft determination.

The Commission did not receive a request for a pre-determination conference but one submission was received from NEMMCO. This determination takes into account matters raised in that submission.

A person dissatisfied with the final determination may apply to the Australian Competition Tribunal for its review.

¹ <http://www.accc.gov.au>

4. Background

4.1 What are ancillary services?

Ancillary services are essential for the management of power system security, facilitating trade in the NEM, and ensuring that electricity supplies are of an acceptable quality.

Ancillary services can be defined as those services that provide for the power system security, quality of supply and enhanced spot market trading benefits that would not be voluntarily provided by market participants on the basis of energy prices alone.² The three broad groups of ancillary services are:

- ***Frequency Control Ancillary Services (FCAS)*** - ancillary services that balance power supply and demand over short time intervals throughout the system. Tools for managing frequency deviations include governor controls, synchronous motors, automatic generation controls and load shedding.
- ***Network Control Ancillary Services (NCAS)*** - ancillary services that maintain and extend the operational efficiency and capability of the network within secure operating limits. Tools for managing the network include synchronous condensers, static var compensators, series capacitors, excitation controls, power system stabilisers, transformer taps and rapid loading/unloading capabilities.
- ***System Restart Ancillary Services (SRAS)*** - ancillary services used in the recovery from a partial or total power system failure. System restart requires generators to be able to restart themselves without external power from the grid and then be capable of providing power to other generators in order to assist other generating units to start.

4.2 Ancillary services in the National Electricity Market

At the time of the code's authorisation, it was considered prudent that ancillary services would be purchased centrally, and that NEMMCO was the most appropriate body for managing this requirement. Therefore, under ancillary service agreements with generators, NEMMCO procured services relating to frequency, voltage, network loading and system restart to ensure that the power system operated in a safe, secure and reliable manner at all times.

The Commission commented that the acquisition of ancillary services by NEMMCO is based on the possible failure of the market to provide sufficient ancillary services³. The Commission accepted that the full costs of providing ancillary services would not be borne across all users, with some preferring instead to 'free ride'.

² Ancillary Services Review Report – phase 1, IES and ASRG, October 1999, p2.

³ Australian Competition and Consumer Commission, *Applications for Authorisation - National Electricity Code*, 10 December 1997, p.95

The development of more market based arrangements for ancillary services was seen as desirable in order to promote effective competition. It was recognised that market signals could be enhanced if ancillary services costs could, to the greatest extent possible, be recovered from the parties responsible for creating the need for the service.

In 2001, the Commission authorised changes to the code⁴ which introduced, amongst other things, a spot market based system for the procurement of FCAS.⁵

Under the present arrangements suppliers are paid on the basis of five minute spot prices for FCAS. The code recognises the possibility of regional prices diverging but the settlement process assumes a common price. NEMMCO recovers the cost of such payments as follows:

- generators pay for raise services
- customers pay for lower services.

Regional prices for FCAS are identical except in situations where the NEM-wide provision of FCAS is prevented. In such cases, NEMMCO is forced to call for the local provision of FCAS to meet the prevailing system conditions and network constraints. Sometimes the regional prices for FCAS may separate and become volatile, however the recovery of FCAS costs in all circumstances is smeared across all regions.

4.3 Recent market developments

On 27 May 2003, South Australia was isolated from the rest of the NEM for approximately one hour. The price of FCAS during that hour increased dramatically and the total cost amounted to nearly \$5 million. Most of the costs stemming from these high prices were borne by generators throughout the NEM. The energy price outside South Australia, which would have normally been expected to reduce as supply in those regions would have increased, in fact rose to a maximum of \$230/MWh as generators rebid their positions and withdrew generation in response to the high prices in the FCAS markets.

4.4 Cumulative price threshold in the energy market

The energy market currently has a cumulative price threshold (CPT) in place which stands at \$150,000 and clause 3.14.2 of the code specifies the rules for the application of an administered price cap (APC).

⁴ Australian Competition and Consumer Commission, *Applications for Authorisation - National Electricity Code- Ancillary Services Amendments*, 11 July 2001.

⁵ The FCAS markets include contingency and regulating services, however the proposed code changes relating to regional pricing affect only contingency services. The proposed code changes relating to the CPT affect all FCAS. Contingency services are also known as large deviation FCAS or fast, slow and delayed raise and lower services respectively. Regulation services are also known as small deviation FCAS, or continuous services.

Essentially, if the sum of prices reaches the CPT in any seven-day period, an APC is imposed in the market.

The APC is:

- \$100/MWh between 7.00am and 11.00pm on business days
- \$50/MWh at other times.

The code currently states that the CPT can trigger the imposition of an APC to the FCAS markets in some instances. Specifically, clause 3.14.2(d) states that during an administered price period, FCAS price determination is to continue in accordance with code provisions. However if, within an administered price period, the dispatch price calculated as if clause 3.14.2(d) did not apply were to exceed the APC, then NEMMCO must set the FCAS price to the APC.

5. The Commission's assessment

5.1 The application

NECA's application to the Commission proposes changes to the cost allocation arrangements for FCAS when part of the market is isolated and services need to be sourced locally.

The proposals are founded on ideas initially put forward by Eraring which were subsequently refined by Charles River Associates (CRA) and a focus group of market participants, including Eraring.

Further to Eraring's proposal and CRA's report to NECA, the Code Change Panel also recommends that the CPT that currently acts to limit prices in the energy market should be extended to the FCAS markets.

5.2 Issues for the Commission

Amending the cost allocation arrangements for FCAS would have a substantial impact within the NEM. While the costs of these services is normally small compared to the energy market, they can on occasion spike at high levels particularly when regions are isolated and FCAS have to be recruited locally. The Commission, therefore, has an obligation to consider the implications of the proposed code changes on the efficiency of the market as well as the costs to participants and ultimately, end-users.

To authorise these code changes, the Commission must be satisfied that the proposed code changes facilitate a competitive and efficient electricity market, and that the subsequent benefits outweigh any anti-competitive detriment.

In light of the criteria for authorisation specified in the statutory test, it is important that the new cost allocation arrangements for FCAS be an improvement upon those currently in place. While the proposed code changes may not solve all the perceived problems with FCAS markets, the Commission has an obligation to assess the proposed code changes consistent with the statutory test outlined previously.

Some specific issues relevant to the statutory test may be that the proposed code changes:

- are considered to be price fixing provisions, to the extent that participants are agreeing that a particular pricing mechanism be used to determine prices
- lessen anti-competitive arrangements, to the extent that removing smearing of the recovery of costs of FCAS on a market wide basis unwinds cross subsidies, resulting in improved market signals, enhanced market efficiency and greater equity
- create investment signals through regional pricing, where high prices in regions can signify the need for facilities which can provide FCAS

- improve market efficiency by reducing perverse outcomes where generators rebid their capacity in the energy market in response to high priced events in the FCAS markets
- create barriers to entry
- encourage the exercise of market power in specific regions
- improve hedging and therefore risk management within the FCAS markets
- add further complexity.

5.3 What the applicant says

Eraring proposal

Eraring Energy (Eraring) last year proposed a change to the market rules whereby the costs for the provision of FCAS would be recovered from the region or regions which gave rise to that local requirement rather than on a market-wide basis.

Eraring argued that the existing charges can unfairly impact on participants who have no ability to influence the cost of these services. Eraring also argued that the current settlement process inhibits the hedging of FCAS costs by creating an asymmetrical outcome between suppliers and purchasers of the services.

Under its proposed arrangements, Eraring envisages that FCAS costs would be directed to those participants who have the capacity to influence the price outcome. It claims that this will allow a better matching of risk to facilitate hedging. Eraring anticipated that where the local requirement was small relative to the overall service requirement, the regions with the local requirement would also bear a share of the cost of the global requirement.

Response to Eraring proposal

According to NECA, most respondents to Eraring's proposal agreed with the need to change the existing arrangements, however most expressed concerns either that the proposal required further refinement, or that it did not cover a sufficiently wide range of circumstances.

Similarly, the Code Change Panel had some concerns with the Eraring proposal, specifically where customers and generators being charged for locally sourced services would not necessarily be those who caused the requirement or who were the prime beneficiaries.

NECA commissioned CRA to examine the issues surrounding regional pricing of FCAS, from which its code change application followed.

NECA's application

NECA contends that the introduction of FCAS markets has been a significant success. The prices of these services have decreased from \$3 million per week, or 3-5 per cent of energy market turnover, prior to market arrangements being introduced to typically \$500,000 or 0.4 per cent since their introduction.⁶

NECA states that the normally low value of FCAS can spike to very high prices when supply is constrained, typically as a result of a network outage when part of the market is isolated and FCAS need to be sourced locally.⁷ NECA is concerned that customers and generators are charged for FCAS when they are not necessarily those who caused the requirement or who were the prime beneficiaries.

NECA contends that concentrating the costs of locally-provided FCAS would also risk making those costs prohibitive, especially to those generators unable to provide FCAS.

NECA states that generators can and do use their output in the energy market to control their exposure to high priced FCAS events. As such, NECA does not want to promote a change that forces generators, who cannot provide FCAS, out of the energy market during high price events in the FCAS markets, resulting in price spikes in the energy market.

NECA states that changes to the despatch engine (NEMDE) being implemented by NEMMCO would have the effect of expanding co-optimisation between FCAS and the energy market to take account of interconnector flows. It will ensure that FCAS are purchased in order to support interconnector flows only when it is cost-effective to do so. NECA considers that it will improve the arrangements for FCAS, and reduce the costs of those services, in most circumstances leading up to a region or regions being isolated.

CRA's report also recommends a number of refinements to Eraring's proposal which are intended to ensure that revised arrangements for regional pricing of FCAS:

- are consistent with the improved arrangements being introduced by NEMMCO to ensure economic purchasing of FCAS and extend the degree of co-optimisation between the energy market and FCAS
- more appropriately apportion costs between overlapping local and global requirements for FCAS
- are robust in a wide range of more complex circumstances, such that they will be able to cope with multiple local FCAS requirements, and overlapping local and global requirements

⁶ "The connection of Queensland to the southern states in February 2001, however, also contributed to that reduction." – The performance of ancillary services markets, NECA, May 2003.

⁷ "Local services have been required for less than 5 per cent of the time, but accounted for almost 70 per cent of the total cost of frequency control ancillary services." – Regional pricing of ancillary services report, Code Change Panel, NECA, March 2003.

- provide a basis for further refinements to the cost allocation arrangements for FCAS.

NECA endorses the refined proposals and also recommends that the CPT that applies in the energy market should also be applied in the FCAS markets.⁸

The CPT limits the duration of value of lost load (VoLL) price spikes before introducing an APC. NECA argues that network outages can cause a requirement for FCAS to be sourced locally. This tightening of supply can result in extreme price spikes. It is foreseeable that without some kind of CPT, such spikes could continue for the duration of the outage.

The CPT is consistent with the energy market and reduces the exposure of generators who can not provide FCAS for a prolonged period.

NECA states that these are valuable and worthwhile code changes that also help facilitate market participants' ability to hedge their risks in the FCAS markets.

5.4 What the interested parties say

Most of the submissions received by the Commission indicate support for the majority of the proposed code changes. The issues of concern raised by interested parties are discussed below.

Regional pricing

In support of the proposed code changes, a number of submissions consider that the current cost recovery mechanisms for FCAS detract from the efficiency of the market because they smear the recovery costs across all regions. The National Generators' Forum (NGF) criticises the current arrangement where FCAS relating to only one region require all participants in all regions to fund the services purchased. In contrast, Ergon Energy (Ergon) does not support regional pricing of FCAS. It considers the pursuit of regionalisation to be in direct contradiction to actions taken over the last decade to develop an integrated NEM. Ergon also considers that the broader market security and reliability benefits provided by the current FCAS directions process should be recognised.

The NGF considers that the current arrangements are inconsistent with the causer pays principle introduced into the NEM with the purpose of enhancing NEM efficiency. In contrast, Ergon states that the proposed code changes are at odds with the causer pays approach that has been embraced by the market.

⁸ The same \$10,000 price cap, or VoLL, currently applies in both the energy and ancillary services markets. The cumulative price threshold arrangements in the energy market, however, which in effect limit the duration of VoLL prices before introducing administered prices of \$100/MWh for the peak and \$50/MWh off-peak, do not currently apply to circumstances where episodes of high ancillary services prices occur in the absence of high energy prices.

Analysis of costs and benefits

Ergon denounces the lack of analysis of the costs and benefits of the proposed code changes. It suggests that there is no analysis showing how market efficiency will be holistically and materially improved by the code changes, and is particularly concerned with the apparent lack of consideration given to the downstream impacts of the proposal.

Ergon also contends that through being forced to amend reconciliation, settlements and customer billing systems, retailers will face significant costs in their endeavours to adapt to the changes.

Hedging mechanisms

The NGF and TXU suggest that the lack of regional pricing is the main complicating factor for FCAS providers in offering hedging products to help mitigate and manage the risk associated with FCAS.

Powerlink supports any changes to market arrangements which improve the ability of parties to hedge FCAS, saying that it will provide more effective risk management than passing such risk onto Transmission Network Service Providers (TNSPs).

In contrast, Ergon believes it is unlikely that an increase in hedge market liquidity would arise from the regionalisation of FCAS charges as the current level of hedging activity in the FCAS markets is reasonably limited.

Cumulative Price Threshold and Administered Price Cap

Some submissions cite concerns regarding the implementation of an APC for FCAS. TXU understands that the mechanism caps the energy markets as well as FCAS markets, and has the potential to cap the entire NEM. It states that an APC would likely have the effect of:

- dampening investment signals and demand-side participation
- failing to provide generators with the incentive to maintain availability during periods of shortage
- causing NEMMCO to intervene to maintain plant availability, thus leading to large compensation payments not able to be mitigated by market customers
- unfairly exposing participants utilising inter-regional trading strategies
- enabling the gaming of the inter-regional flow mechanism that switches the cap on and off in adjacent regions by generators and Market Network Service Providers.

As such, the NGF and TXU recommend that the APC should apply only to the services that need to be limited, such as the particular service and region that triggered the CPT. TXU provides a further option, being an APC on FCAS prices at the regional energy price plus the administered price threshold.

Hydro Tasmania does not object to an APC on FCAS markets in appropriate circumstances but does not, along with the NGF, believe it necessary for the trigger level to be identical to that applied in the energy markets.

The parties in support of the APC were Ergon and Origin Energy (Origin). Both Ergon and Origin support a consistent approach across both the energy and FCAS markets. Origin contends that it is inappropriate that the costs of an insurance product (FCAS) could exceed the actual cost of the event being insured against.

Network issues

In their submission, Hydro Tasmania suggests that the impact of network events on the requirement for FCAS should be investigated further in the context of a wider review. It further suggests examining mechanisms that would expose TNSPs to the consequences of network events.

Ergon similarly advocates the consideration of the inclusion of other causers of FCAS requirements, including transmission outages or NEMMCO forecasting errors.

Powerlink states that TNSPs can neither provide local FCAS or influence the price of local FCAS directly. However, it does acknowledge that TNSPs are able to influence the quantum of FCAS which would be required if the requirement had arisen due to a network outage.

Powerlink says that TNSPs cannot necessarily return network elements to service within 5 minutes (the duration of a dispatch interval) once a planned or forced outage has commenced. It states that in many cases, two hours or more would be needed during planned outages. Therefore, Powerlink considers that it is not appropriate to include TNSPs in the market arrangements which operate on a dispatch interval basis.

Powerlink are more supportive of arrangements which incentivise TNSPs to work towards minimising market impacts from network outages.

Consultation process

Both Delta Electricity and TXU highly commend the consultation process for the code changes conducted by NECA however they, along with Hydro Tasmania, are critical that the market was not given a chance to comment on the CPT before the final report was submitted to the Commission.

Ergon contends that the consultation process was flawed, saying that the Code Change Panel sought comment from only a narrow segment of the industry. It suggests that in light of the fact that the proposed code changes to the Commission are a more refined version of that initially considered by the Code Change Panel, a more representative group of code participants should have been convened to consult on the changes.

Ergon suggests that the code changes should not be endorsed until after the forthcoming ancillary services review has been completed.

Code clarification

Hydro Tasmania identified some ambiguities in clauses of the proposed code changes.

5.5 Issues arising from the draft determination

NEMMCO notes that their systems are currently unable to accommodate the new requirements of the proposed code changes. Hence, implementation will be on a manual basis until May 2004, after which the system changes will be in place.

5.6 Commission's considerations

Regional Pricing

The Commission acknowledges the work undertaken by CRA for NECA in researching and analysing the regional pricing of FCAS.

Under the current FCAS market arrangements, costs are smeared across the whole market. When a region is isolated and a FCAS requirement arises, the costs affect participants who have neither contributed to the requirement, nor have the ability to influence price outcomes in that region.

Furthermore, the current arrangements contribute to perverse outcomes as generators outside the affected region move to limit their exposure to high FCAS prices by reducing their output, or raising prices in the energy market.

The events of 27 May 2003 illustrate this problem. For the hour that South Australia was isolated, FCAS prices in South Australia increased significantly. Generators in other regions who were unable to influence this outcome, but would face the costs, rebid their capacity in the energy market, driving up prices in the energy market, to cover these high FCAS costs.

The Commission considers that if participants in a region face the full costs of an FCAS regional requirement (rather than a portion of the smeared cost) then those participants with an ability to influence price outcomes will have a greater incentive to do so. Therefore, the Commission considers that market efficiency and price signals should be improved by having FCAS costs allocated in this manner.

Furthermore, the equity of market outcomes should be enhanced by regional pricing through unwinding cross subsidies and extending the causer pays approach.

Regional pricing should also create natural counter parties for hedges as those that pay for a service and those providing them when a region is isolated will face similar prices and costs. Therefore, regional pricing should create incentives for participants paying for FCAS to seek hedging contracts as they will bear the entire costs rather than a small component when the costs are recovered from the entire market.

The Commission welcomes any developments that improve the availability of hedging within the FCAS markets as contractual obligations can normally be expected to discipline spot market outcomes.

Cumulative Price Threshold and Administered Price Cap

Currently the code specifies that in the energy market, an APC is applied to regional energy prices when triggered by a sustained period of high energy market spot prices. The APC extends to energy prices in upstream regions. It can also affect FCAS prices to some extent.

The code changes broaden the trigger to include periods of high FCAS prices and an APC that, once invoked, will apply to the energy and FCAS markets.

The trigger amount for FCAS is specified in the proposed addition to clause 3.14.2(c) stating that a trading interval is to be an administered price period if in a region:

- (1A) the sum of the *ancillary service price* for a *market ancillary service* in the previous 2016 *dispatch intervals*, calculated as if this clause did not apply, exceeds 6 times the *Cumulative Price Threshold*.

This provision would have the effect of creating an equivalent trigger in the FCAS markets to that now in place for the energy market. In the energy market, the CPT applies to a moving window of 336 half-hour trading intervals, or seven days. Similarly, the FCAS trigger will apply to 2016 five-minute dispatch intervals which again amount to seven days. In the energy market, the half-hour spot prices within the seven-day window must sum to at least the CPT of \$150,000 in order to trigger a price cap. In the FCAS markets six times as many spot prices are needed, since each price applies to a five-minute interval instead of a half-hour. Hence the trigger level must be \$900,000 or six times higher in order to achieve a comparable outcome.⁹

Potentially, these changes deliver benefits by diminishing the risk of cascading default at times of sustained high FCAS prices, thus helping to manage systemic risk. They reduce the financial risks to which those paying for FCAS are exposed, thus minimising barriers to their participation in the market. They also limit the scope for suppliers of FCAS to exercise undue market power in the FCAS spot markets.

The Commission recognises that implementing regional pricing in the FCAS markets without some form of APC may make participants of a particular region more vulnerable to price volatility in the FCAS markets if that region is isolated.

However, any APC is potentially distortionary, and may introduce unnecessary uncertainty for investors. It can discourage efficient investment through curbing legitimate market opportunities.

Furthermore, a number of submissions questioned the advisability of allowing high FCAS prices to trigger an APC in the energy market. The Commission similarly has concerns regarding the introduction of any APC in a market, and more so if in activating such an APC, the same is triggered in another market.

Under the proposed code changes, a run of high prices in any regional FCAS market could trigger an APC in the regional energy market and any upstream regions. The sheer multiplicity of trigger prices – eight FCAS prices in each of five regions – must increase the probability of APCs being triggered. Thus, the proposed changes may significantly increase the probability of APCs being triggered.

Moreover, the benefits in having an APC in the energy market as a result of high prices in one of the FCAS markets is not clear given that the volumes in the FCAS markets are small relative to those in the energy market.

⁹ The Commission is of the understanding that since the FCAS markets were introduced in September 2001 there have been no instances of aggregate weekly payments for FCAS exceeding the CPT that NECA is proposing.

In theory, many of the projected benefits of the APC could be obtained through more market-based means. For example, if participants in the FCAS spot markets could purchase hedges at commercial rates, the need for interventionist risk management measures such as an APC would be greatly reduced. Also, suppliers who sold hedges might have less incentive to exercise market power in the FCAS spot markets.

However, in practice there may be barriers to bilateral hedging. The complexity of the cost-allocation arrangements may make it difficult for participants to assess what hedge portfolio they need to fully protect their positions. NEMMCO, as monopsonic purchaser in the FCAS markets, might be better placed than individual participants to hedge FCAS costs in the forward markets. However, it is not currently empowered to purchase FCAS hedges.

Given there may be significant barriers to bilateral hedging of FCAS costs, the proposed extensions of the APC may deliver significant benefits through managing trading and systemic risks and through deterring abuse of local market power.

Further work

Demand side response

In most markets an increase in prices should see a reduction in quantity demanded. The Commission questions whether consideration has been given to NEMMCO, as the monopsonic buyer of FCAS, reducing its demand for FCAS during high priced events.

FCAS regulating services

The proposed code changes create a framework for regional requirements for all types of FCAS except regulating services¹⁰. The Commission understands that this issue was too complicated to consider for the current proposed code changes but believes that the option of extending regional pricing to regulating services should be considered in the future.

Network Issues

The Commission understands that FCAS requirements often arise from market events triggered by network issues. As the arrangements for regional pricing will not impose any further responsibility on TNSPs in managing their networks, the Commission encourages further research into the effects of network caused FCAS requirements. The Commission agrees with Powerlink in regards to seeking arrangements that incentivise TNSPs to work towards minimising market impacts from network outages.

Cumulative price threshold

The Commission is concerned with the lack of analysis undertaken in the process of developing the proposed changes relating to the CPT and APC, and the Commission is

¹⁰ The Commission is of the understanding that regulating services were a substantial proportion of the total of FCAS costs in the May 27 event.

sympathetic to concerns raised by submissions regarding the lack of consultation on these issues.

Implementation

The Commission notes that NEMMCO is unable to modify their systems prior to the implementation of these code changes and will be using a manual system until May 2004.

Conclusion

The Commission considers that the proposed regional pricing code changes deliver a net public benefit by unwinding cross subsidies and enhancing market equity and efficiency through improved price signals. This allows only those best able to respond to FCAS local requirements to do so, rather than those with no capacity to influence outcomes.

Moreover, investment signals will be clearer, there will be greater incentives for participants to seek hedging contracts and any perverse outcomes in the energy market will be reduced. The proposed code changes also increase the co-optimisation between energy and ancillary services.

The Commission considers that the causer pay arrangements are still less than ideal, given that they do not recognise the possible contribution from TNSPs' actions. However, for reasons already outlined, the Commission considers that there is an incremental benefit.

While the Commission does not object to the APC in principle and sees some benefits, it questions whether the CPT proposed in the code changes is appropriate. The Commission accepts that it may be wise to have in place a mechanism for limiting the duration of such price spikes. However, the Commission considers that it is unlikely that the proposed code changes will deliver a net public benefit if the proposal for high FCAS prices to trigger an APC in the energy market is retained. Condition C1 therefore requires the deletion of this cross linkage. Even with this amendment it is not certain that the changes to the APC provisions will deliver a net public benefit.

However, it is possible that a region could be isolated for an extended period of time due to a network outage and therefore there is a small but non-zero risk of highly deleterious outcomes if the changes are disallowed. In that event, participants might at some stage become exposed to intolerable risks and/or a supplier might be put in a position where it can exercise untrammelled market power.

Therefore, it is recommended that further work be done in this area. NECA has advised the Commission that it will be reviewing the CPT and APC arrangements, as they currently function in the energy market, later this year as part of its annual review of VoLL. The Commission therefore requires NECA to coordinate a review of the CPT and APC in the FCAS markets as part of its broader review. Condition C2 refers.

Put simply, it is anticipated that the proposed changes will facilitate market participants' ability to hedge their risks in the FCAS markets, and the APC may work to limit their liability in the event of an extreme and extended price spike.

In addition, the Commission notes the ambiguity of the proposed code changes, as identified by Hydro Tasmania, will cause difficulty in interpreting the code and hence operating the NEM. The Commission believes the code changes require clarification relating to the interpretation and implementation of the proposed code changes. Conditions C3 to C5 refer.

The Commission therefore authorises the proposed code changes, subject to:

- removing the proposal for high FCAS prices to trigger an APC in the energy market
- NECA coordinating a review of the CPT and APC arrangements
- correcting identified ambiguities.

The following conditions refer:

C1 Clause 3.14.2 must be amended to read:

(d) During an *administered price period* the procedures for *PASA, dispatch, spot price* and *ancillary service price* determination are to continue in accordance with the provisions of the *Code*.

(d1) If, within an *administered price period* triggered because of clause 3.14.2(c)(1), (2) or (3) in relation to *energy*, the *dispatch price* for the *region* identified in clause 3.14.2(c) calculated as if this clause 3.14.2(d1) did not apply;

(1) exceeds the *administered price cap*, then *NEMMCO* must set the *dispatch price* to the *administered price cap*, or

(2) is less than the *administered price floor*, *NEMMCO* must set the *dispatch price* to the *administered price floor*.

(d2) If within an *administered price period* an *ancillary service price* for the *region* identified in clause 3.14.2(c) calculated as if this clause 3.14.2(d2) did not apply exceeds the *administered price cap* then *NEMMCO* must set that *ancillary service price* to the *administered price cap*.

C2 NECA must coordinate a review of the APC in the FCAS markets as part of its broader review of clause 3.14.

C3 The term ‘in that region’ must be deleted from the proposed clause 3.9.2A(b1)(1)

C4 Clauses 3.15.6A(f) and 3.15.6A(f)(1) must be amended to read:

“The total amount calculated by NEMMCO under clause 3.15.6A(a) for each of the fast raise service, slow raise service or delayed raise service in respect of each dispatch interval which falls within the trading interval must be allocated to each

region in accordance with the following procedure and the information provided under clause 3.9.2A(b). NEMMCO must:

- (1) *allocate for each region and for each dispatch interval within the relevant trading interval the proportion of the total amount calculated by NEMMCO under clause 3.15.6A(a) for each of the fast raise service, slow raise service or delayed raise service between global market ancillary services requirements and local requirements pro-rata to the respective marginal prices for each such service”*

C5 Clauses 3.15.6A(g) and 3.15.6A(g)(1) must be amended to read:

“The total amount calculated by NEMMCO under clause 3.15.6A(a) for each of the fast lower service, slow lower service or delayed lower service in respect of each dispatch interval which falls within the trading interval must be allocated to each region in accordance with the following procedure and the information provided under clause 3.9.2A(b). NEMMCO must:

- (1) *allocate for each region and for each dispatch interval within the relevant trading interval the proportion of the total amount calculated by NEMMCO under clause 3.15.6A(a) for each of the fast lower service, slow lower service or delayed lower service between global market ancillary services requirements and local requirements pro-rata to the respective marginal prices for each such service”*

6. Determination

On 27 March 2003, the Commission received applications for authorisation (Nos A40086, A40087 and A40088) of amendments to the code. The applications were submitted by NECA, under Part VII of the TPA. The code changes relate to the modification of the arrangements for recovery of the costs of some FCAS in the NEM.

The applications were made under sub-sections 88 (1) and 88 (8) of the *Trade Practices Act 1974* (the TPA) to:

- make or give effect to a contract or arrangement, or arrive at an understanding, where a provision of that proposed contract, arrangement or understanding would be, or might be, an exclusionary provision within the meaning of section 45 of the TPA (Form A)
- make or give effect to a contract or arrangement, or arrive at an understanding, a provision of which would have the purpose, or would or might have the effect, of substantially lessening competition within the meaning of section 45 of the TPA (Form B)
- engage in conduct that constitutes or may constitute the practice of exclusive dealing, within the meaning of section 47 of the TPA (Form E).

For the reasons outlined in chapter 5 of this determination, the Commission considers that the arrangements and conduct set out in the regional pricing of ancillary services code changes for which authorisation is sought under subsection 88 (1) and 88 (8) of the TPA (subject to the conditions of authorisation):

- are likely to result in a benefit to the public which outweighs the potential detriment from any lessening of competition that would result if the proposed conduct or arrangements were made, or engaged in
- are likely to result in such a benefit to the public that the proposed conduct or arrangements should be allowed to take place or be arrived at.

The Commission is also satisfied that, in all the circumstances, the conduct for which authorisation is sought under subsection 88 (8) of the TPA in respect of proposed conduct to which subsections 47 (6) and (7) apply (subject to the conditions of authorisation) would be likely to result in such a benefit to the public that it should be allowed to take place.

The Commission is also satisfied that, in all the circumstances, the conduct for which authorisation is sought under subsection 88 (1) of the TPA in respect of provisions which may be exclusionary provisions (subject to the conditions of authorisation) would be likely to result in such a benefit to the public that it should be allowed to be made and given effect to.

The Commission therefore proposes to grant authorisation, subject to the conditions outlined below, to applications A40086, A40087 and A40088. The period of authorisation is to 31 December 2010.

Conditions:

C1 Clause 3.14.2 must be amended to read:

(d) During an *administered price period* the procedures for *PASA, dispatch, spot price* and *ancillary service price* determination are to continue in accordance with the provisions of the *Code*.

(d1) If, within an *administered price period* triggered because of clause 3.14.2(c)(1), (2) or (3) in relation to *energy*, the *dispatch price* for the *region* identified in clause 3.14.2(c) calculated as if this clause 3.14.2(d1) did not apply;

(1) exceeds the *administered price cap*, then *NEMMCO* must set the *dispatch price* to the *administered price cap*, or

(2) is less than the *administered price floor*, *NEMMCO* must set the *dispatch price* to the *administered price floor*.

(d2) If within an *administered price period* an *ancillary service price* for the *region* identified in clause 3.14.2(c) calculated as if this clause 3.14.2(d2) did not apply exceeds the *administered price cap* then *NEMMCO* must set that *ancillary service price* to the *administered price cap*.

C2 NECA must coordinate a review of the APC in the FCAS markets as part of its broader review of clause 3.14.

C3 The term ‘in that region’ must be deleted from the proposed clause 3.9.2A(b1) (1)

C4 Clauses 3.15.6A(f) and 3.15.6A(f)(1) must be amended to read:

“The total amount calculated by NEMMCO under clause 3.15.6A(a) for each of the fast raise service, slow raise service or delayed raise service in respect of each dispatch interval which falls within the trading interval must be allocated to each region in accordance with the following procedure and the information provided under clause 3.9.2A(b). NEMMCO must:

(1) *allocate for each region and for each dispatch interval within the relevant trading interval the proportion of the total amount calculated by NEMMCO under clause 3.15.6A(a) for each of the fast raise service, slow raise service or delayed raise service between global market ancillary services requirements and local requirements pro-rata to the respective marginal prices for each such service*”

C5 Clauses 3.15.6A(g) and 3.15.6A(g)(1) must be amended to read:

“The total amount calculated by NEMMCO under clause 3.15.6A(a) for each of the fast lower service, slow lower service or delayed lower service in respect of each dispatch interval which falls within the trading interval must be allocated to each region in accordance with the following procedure and the information provided under clause 3.9.2A(b). NEMMCO must:

- (1) allocate for each region and for each dispatch interval within the relevant trading interval the proportion of the total amount calculated by NEMMCO under clause 3.15.6A(a) for each of the fast lower service, slow lower service or delayed lower service between global market ancillary services requirements and local requirements pro-rata to the respective marginal prices for each such service”***

Appendix A – Submissions to the Commission

The Commission received submissions on the application from the following parties:

Delta Electricity

Eraring Energy

Ergon Energy

Hydro Tasmania

NEMMCO

National Generators' Forum

Origin Energy

Powerlink

TXU

The Commission received submissions on the draft determination from the following parties:

NEMMCO