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Mr Michael Rawstron
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Dear Mr Rawstron

NECA Transmission and Distribution Pricing Code Changes

Bardak has reviewed the report arising from the NECA review of Transmission and Distribution Pricing, the proposed Code changes submitted by NECA to implement the recommendations, and the ACCC Issues Paper on the same subject.

We appreciate the opportunity to make comment to the ACCC on the proposed Code changes. Our concerns are detailed below.

Evolution of the Australian Code

We are very concerned as what appears to be an inadequate understanding evident in the NECA Report (and reflected in the nature of the Code changes) of the latest developments in overseas practices in both trading systems and network pricing.

The descriptions included in the NECA report are very inadequate indeed, and the lack of understanding of where modern best practice sits in these matters perhaps explains some of the rather odd statements made in the body of the report about there being no simple answers available overseas.

Bardak has always been of the view that the nature of the network pricing system depends critically on the nature of the trading system and that the latter should be first finalised and settled. Indeed, modern means of trading allow considerable simplification in network pricing arrangements.

This is directly related to the comment on page 15 of the Issues Paper suggesting that:-

> "consideration should also be given to the wider question of whether the proposed changes are consistent with the evolution of a more efficient and decentralised national electricity market"

Bardak agrees with the need for the ACCC to step back from the detail and examine the propose changes in the wider context of the objective of an efficient national electricity market. We are of the view that the proposed Code changes will not comply with this objective.

Bardak has for many years been critical of the decision taken in Australia in the early 1990's to follow the UK style of a compulsory, single priced pool, with compulsory centralised dispatch, where the pool price is set only by generators bidding for dispatch. The very nature of the Australian power systems, the small number of large generating stations, the impossibility of creating sufficient competition in generation and the regional nature of the Australian systems made such a trading arrangement very inappropriate.

Quite apart from the particular Australian problems, the nature of such a trading system - where the price is set by a few participants and applies to all - is inherently troublesome and leaves the single pool price open to manipulation.

We draw the attention of the ACCC to the decisions taken in the UK last year to abolish the compulsory, single priced pool and to implement trading systems consistent with normal commodity markets and consistent with best modern practice in both electricity and gas.

We recommend that the ACCC absorb the conclusions arising from the UK experience and contemplate the point that the same basic problems are rapidly emerging in the Australian market place. For example, in the latest Discussion Paper (July 1999), OFGEM states on p.29 as follows:-

> "The present Pool has made positive contributions on a number of fronts – it has maintained security of supply, the half-hourly pricing structure has underpinned trading between generators and suppliers, and it has facilitated new entry into the generation market and allowed competition in supply to be introduced.
>
> However, the Pool has also failed to deliver on several, very major counts. Instigation and realisation of reform has been slow. Demand-side participation has been limited. The compulsory Pool membership has hindered potential innovation, in both contracting strategies and within the Pool itself. The complexity of both the offers that generators submit and the price setting arrangements in the Pool have done little to facilitate the development of competition between generators, and has reinforced the market power of the major players. In addition, this complexity has limited any meaningful price transparency with which participants can make better-informed decisions. Despite increased entry, the major players retain power over price setting. The ability and willingness of the major generators to influence the underlying Pool price has led to high, unrepresentative Pool prices which have inhibited the development of an electricity derivatives market and limited liquidity of the contracts market.
>
> Most important of all, these various effects have contributed to a situation in which consumers have faced higher prices than would have otherwise have been feasible.

> There is no simple way to modify the Pool to overcome its weaknesses. Any worthwhile reforms would require the removal of compulsory membership, the introduction of firm offers, the incorporation of the demand-side and the implementation of ‘pay-as-bid’ pricing.”

The UK will be moving to a more modern system where:-

- most trading will be directly between suppliers and customers at prices and upon terms and conditions which they freely negotiate;
- there will be access to an optional pool (a “power exchange”) where parties can trade in contractual imbalances over the long and short term, and
- there will be central “balancing market’, operating on incremental and decremental prices offered by participants, plus negotiated contracts, to provide frequency control and system security oversight.

Clearly, Australia should be working to evolve the trading system from its present state into one more in tune with the latest overseas developments and the increased understanding of the operation of competitive markets in practical terms, which is now available.

Our contention is that an evolution of this nature will allow more simple, and more fair network pricing systems in Australia than are presently possible - given the nature of the present trading system in use.

In particular, the concept of the bulk of the trading being conducted between identifiable parties at identifiable locations, with contractual arrangements between them, lends itself to systems of firm and non-firm, but tradeable, transmission rights. It can also can eliminate the present confusion between regulated and unregulated additions to transmission systems by allowing parties to contract for firm access and underpin financing of new developments, including interconnections.

We believe that the ACCC should therefore take care not to permanently “authorise” or “accept” the Code changes now being proposed by NECA in any way which would prevent an evolution of the trading and network pricing systems towards best modern overseas practice. At the very least, authorisation should be made to be conditional on a major and independent review of the nature of the compulsory, single priced, energy-only pool in the light of overseas developments, and particularly the experience of the UK.

The Need for Low Network Prices

Bardak has also been critical of the Code provisions and restraints, together with the actions of the States, which lead to excessive asset valuations, high WACC values and other aspects of the Code provisions, and which lead to Australia having some of the highest network prices in the world.

Bardak staff have recently returned from an intensive study of trading and network pricing systems in overseas countries and while the analysis is not yet complete, the indications are that present Australian network prices (using transmission charges as a basis of comparison) are around twice the average of prices in comparable OECD countries. We intend to make the results of this assessment available to the ACCC when complete.

Clearly, the lower the transmission / network charges, the more relaxed both generators and customers can be as to who bears the costs and how they are allocated. Indeed, it is the low level of transmission charges (per MWh delivered) which allows some countries to use quite simple “point of connection” tariffs, born by both generators and customers, rather than elaborate “cost reflective” tariffs of the type presently used in Australia and proposed to be perpetuated by NECA.

Bardak can provide the ACCC with examples of such pricing systems.

These point of connection tariffs are typically differentiated by voltage level, imposed mainly by way of demand charges rather then energy charges, and which may or may not incorporate some distance or “transit” component. The European philosophy is evolving towards removing transmission as a factor in the trading system, with no distance components, and keeping transmission tariffs low and simple to understand.

Low network tariffs and simple and understandable tariff structures are an indispensable aid to the encouragement of efficient trading in electricity and the development of new power plants - where the real economies in electricity production lie.

Bardak believes that the ACCC should continue to critically examine the determination of annual revenue requirements of the network service providers to bring down the general level of network charges in Australia. The ACCC should also be encouraging simplified and easily understandable transmission tariffs, differentiated by voltage level and largely levied on peak demands placed on the system.

This is not intended to deprive network owners of an adequate return for their efforts, but rather to reduce the level of financial profitability and return to those comparable to other Australian businesses operating in the same commercial environment and facing the same level of risk.

The combination of a more modern trading system and lower network prices would open considerably the scope for simpler and fairer network pricing arrangements than are currently being proposed.

Scope of Responsibility

Australia currently leave the transmission network service providers with little to do apart from seeking regulatory approval for new investments in transmission / distribution. This is already affecting their behaviour, in Bardak’s view.

Both transmission losses and congestion charges (difference in regional pool prices” are handled by NEMMCo, who also conduct the basic planning and some approval for transmission works of a major kind, including interconnections.

Other countries take the view that the transmission task should include the handling of both losses and congestion and that the transmission service providers should be responsible for the costs of both factors, which would be included in their regulated annual revenue provisions, probably with an incentive mechanism included.

The UK, Sweden, most of Continental Europe and much of South American take this view, and it is taking hold also in the USA.

The transmission network service provider is then able to internally and directly assess the need and financial benefits of undertaking new investments to reduce losses and congestion. They may be empowered to trade in energy as part of their control of congestion, for example. It is then possible to reduce or eliminate much of the complexity and duplication of Australia's current system, and simplify the regulatory task. Under such a system, matters such a voltage control would probably cease to be an ancillary service and simply become part of the total transmission task.

Transmission service providers essentially would take on the total task of delivering electricity from power stations to major load points, including all of the major factors needed for that task, and performing the tasks at the lowest cost practicable (under regulatory supervision of course). They take on a much more meaningful role than is currently allocated to them, and have incentives to act more commercially than at present.

When coupled with a trading system which allows and requires tradeable transmission rights, this approach has the makings of a much simpler and better way of handling the whole transmission task, including reducing/eliminating much of the current problems associated with regulated/unregulated interconnectors.

Bardak recommends that the ACCC require an independent review of the allocation of responsibilities for the cost of losses and of congestion as part of the broader review of competitive markets already recommended.

Lessons from the Gas Industry

As far as we can determine, the NECA report makes only one superficial reference to the convergence of the gas and electricity industries - one of the main aims of the energy reform process in Australia.

This aspect, and lessons able to be learnt from the gas industry are ignored in the remained of the report, which recommends network pricing arrangements which would actually inhibit the convergence of practices between the two industries.

Modern electricity trading systems are very compatible with those used in the gas industry. Therefore, transportation pricing for electricity based on such systems can draw from the considerable (and generally favourable) experience gained in the access arrangements and pricing of gas transportation services.

Bardak is aware (and was involved in) the presentation to NECA of a detailed option on network pricing based on the system instituted for gas transmission in UK for British Gas (Transco). This involves a system of charging primarily on the basis of long run marginal costs, and has much to commend it. No mention of this proposal is made in the NECA report and it appears not to have been given any consideration.

Gas industry practices also provide solutions to the regulated/unregulated interconnector problem which are well worthy of consideration, but have not been looked at by NECA.

It appears highly likely that the new transmission pricing system for the UK will be based on the gas transportation pricing system already in use in that country.

Bardak believes that lack of attention paid to this aspect is a major failing of the NECA review work.

Need for Firm Access

In our view, a major shortcoming of the NECA report and the Code changes is the failure to address the issue of firm access. This would cover the right, for a given payment, of generators to have their product delivered to market, and the right of consumers to have the product delivered.

It should address the ability of service providers to influence the prices paid and risks taken by others by withdrawing capacity to suit their own needs, and the lack of penalties imposed on service providers for failure to ensure their services are provided at the time they are most likely to be needed.

Again, the concept of firm access fights with the nature of the compulsory, single priced pool, illustrating again the need to evolve to a modern trading system first.

Nodal Pricing

Moving to a system of nodal pricing seems to be being put forward as"the answer to a maiden's prayer" by NECA (and also by the ACCC in the Issues Paper). While not disagreeing with the benefits of calculating real time nodal prices, incorporating both loss and congestion effects, Bardak is of the view that to allow NECA to launch into a major effort to introduce additional complexity at this time, when so many other major matters need to be attended to, would be quite wrong.

Nodal pricing should be viewed as "icing on the cake" of an efficient, fair and equitable transmission pricing scheme, to be added when all other major matters are agreed and implemented properly. Implementation will cause significant additional costs to be incurred - when NEMMCo/NECA costs are already of concern to participants and customers - and divert resources away from solving more pressing problems.

Nodal pricing will only bring in a minor proportion of transmission revenues, and will give very limited signalling for investment purposes (being essentially short term in nature). The handling of sunk costs, and their fair allocation between customers and generators (both old and new) is much more important to get right at this stage of the market.

In Bardak's view, nodal pricing should not be pursued at this stage of the development of the Australian market.

Compatibility with Other Policy Objectives

We note that the NECA report makes no reference to the impact of the recommendations from the review to the Federal Government's commitment to reduce greenhouse gas emissions.

Whilst we accept this is not in the NECA terms of reference to do so, we consider this a major oversight. NECA at least assess and record whether its recommendations would vary if it took into account the potential for greenhouse gas emissions reduction.

In particular, we note the comment made by the Federal Government in their submission to the NECA review that:-

> "Current arrangements, which restrict transmission charging to generators to shallow entry costs, while leaving the bulk of costs to be recovered from customers, provide a substantial subsidy to remote, usually coal-fired generation to the competitive disadvantage of more greenhouse friendly natural gas and renewable generation typically located closer to loads. Pursuit of demand management options is also acutely disadvantaged.

We agree that this is the case, and it will not be improved (except over a very long period of time by which the influence of existing generators has become insignificant) by the proposed Code changes.

Incidence of Charges between Customers and Generators

We would have thought it to be self evident that the principle of cost reflectivity requires that existing generators bear a fair proportion of the cost of using the transmission system. Overseas practice seems to have something around a 50/50 or 40/60 split of the costs between generation and customers - ratios which are intuitively reasonable. Costs should also be differentiated by voltage level and mainly imposed in relation to the peak demands placed on the system, rather than on energy consumption.

NECA proposes to compound what has been thus far an argument between generators and customers as to who pays for transmission, to make it one between existing generators, new generators and customers in the revised arrangements. The scope for many more unfair and uncompetitive outcomes and disputes is obvious.

The NECA proposals are unreasonably protective of existing generators, who will pay a very small proportion of transmission charges (and paying for marginal losses is no substitute) but which will be implicitly granted firm access rights to existing transmission system capacity by the proposed changes.

Again, the gas industry provides useful precedents for cost allocation based on LRMC principles which NECA has ignored.

The Issue of Complexity

The major benefits from competitive electricity markets arise in the generation sector - where most of the costs of the industry are incurred. Facilitating rational investment decisions, assisting in appropriate fuel selection and efficient coordination of operation, are all important in this respect - irrespective of State boundaries.

High prices, complex tariff structures, and lack of transparency are the enemies of this outcome.

NECA's retention of the CRNP methodology (albeit modified to eliminate some of the worst aspects) is a step in the wrong direction.

Bardak principals are very well qualified in electrical transmission matters (one has a Ph.D. in transmission system analysis), but we would defy any reasonable person to be able to understand the esoteric assumptions and calculations which accompany the CRNP methodology, or its suggested modified version. There simply has to be a better and more simple way.

We find that overseas thinking has progressed significantly in arriving at pragmatic solutions which trade off simplicity with cost-reflectivity (usually erring on the side of the former, but not completely ignoring the latter). NECA does not appear to have attempted to become abreast with these developments nor given the matter sufficient attention.

Other Matters

Bardak is aware of a submission made by AMCOR to the NECA review (dated April 1999) which sets out that Company's assessment of other matters covered in the NECA Review and proposed Code changes. Without having had any involvement with AMCOR in their submission, Bardak supports their position on the other matters.

We would be pleased to elaborate on this Submission and the more detailed matters raised in the Issues Paper if the ACCC needs further details or explanations of our views. We are also happy to have this submission published.

Yours sincerely

Rob Booth

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