

12 June 2002

Dr Tom Parry  
Chairman  
Independent Pricing and Regulatory Tribunal of NSW  
Level 2, 44 Market Street  
PO Box Q290  
**QVB Post Office NSW 1230**

Dear Dr Parry

**Interim report - Inquiry into the Role of Demand Management and Other Options in the Provision of Energy Services**

Country Energy welcomes the opportunity to comment on the Tribunal's interim report "*Inquiry into the Role of Demand Management and Other Options in the Provision of Energy Services*". The comments provided in this letter are generally directed to the Tribunal's proposals for encouraging network driven demand management.

The Tribunal has raised a number of issues and options in the interim report that can only be addressed through a national approach, rather than a state based approach. Country Energy believes that there is a need to work on developing a national integrated approach and framework for distributed resources. A national approach would ensure consistent outcomes across the jurisdictions, allow distributed resources to gain more widespread use, maximise benefits to all stakeholders and balance incentives for new network investment, demand side responses and benefits to consumers.

***Distributed Generation and Related Matters***

The comments contained in Country Energy's submission to the Tribunal's discussion paper "*Distribution Generation*" apply equally to the Tribunal's proposed regulatory and market based options to encourage the development of potential distributed resources, as detailed in Chapter 4 of the interim report, namely:

- Negotiation of fair connection agreements including the development of national standards and guidelines for connection, ensuring equitable treatment in relation to connection costs, the establishment of guidelines for efficient effective negotiations, and the development of standard offers;
- Clarify payments of avoided network costs including avoided TUOS payments, avoided distribution network cost and capitalising payments to distributed generation;
- Provide a framework for small generators;
- Encourage the adoption of smart meters;
- Provide incentives for distributors; and
- Remove institutional and structural barriers.

In relation to the first item, distribution networks have been historically designed to support demand. Distributed generation can create technical constraints on the network relating to increased fault levels, increased protection requirements and impose capacity limitations such as voltage regulation, which can impose significant costs on the distributor in providing (and maintaining) the connection. The Tribunal has recently released its Determination No 1, 2002 *“Capital Contributions and Repayments for Connections to Electricity Distribution Networks in NSW”* which provides a sound methodology for determining connection charges for demand customers and the reimbursement scheme to apply throughout NSW. The recent determination of capital contributions for demand connections and the principles thereof should apply equally to the connection of distributed generation because, to a network, there is no difference in the connection assets required for a demand customer than for a generation customer. The distributor must cater for the demand imposed on the network irrespective of the direction of the power flow.

### ***Review the Regulatory Treatment of Network Capital Expenditure and Encourage Trials of Demand Management***

Country Energy reiterates its support for the NSW Demand Management Code of Practice for Electricity Distributors. In accordance with the Code, Country Energy’s initial Electricity System Development Review report will be published in June 2002.

The promotion of sound regulatory practice requires the publication of a prudency test to provide certainty to the NSW electricity distributors and enable them to estimate the level of regulatory risk associated with network investments. The absence of a published prudency test does not serve the interests of stakeholders of the NSW network regulatory regime.

Distributed resources can provide energy, capacity, transmission and distribution value. In recognition of these benefits, Country Energy has commenced working with SEDA on investigating the implementation of pilot programs in our service area aimed at documenting the extent to which demand management can defer or avoid investment in the network.

### ***Encourage Trials of Congestion Pricing***

The implementation of the congestion pricing approach as proposed by the Tribunal would require the distributor to charge something less than the averaged network price in areas that have excess capacity, and a much higher price approaching the marginal cost of distribution in those areas of the network with emerging constraints. The marginal cost price structure is an attempt to send an economic price signal to connection applicants and motivate new connections to locate in lightly loaded parts of the network and to discourage new consumption in heavily loaded areas. It is suggested that this will result in resources being allocated to those parts of the network where they make economic sense.

Country Energy believes that the wide spread implementation of distribution congestion pricing structures is undesirable for compelling customer equity and practical reasons.

From an equity perspective, there would be price discrimination between like customers who may be connected to differently loaded feeders, which may not be geographically distant. Equally, if an existing customer decides to increase their load, they will be required to pay a higher congestion related network price because their feeder has an emerging constraint due to the connection of other unrelated downstream loads. Additionally, if an applicant decides to connect at the higher congestion price because of a business necessity, that customer would be at a competitive disadvantage to an existing business on an average network price. Country Energy's distribution network and the transmission grid (including the location of the transmission generation), have been developed historically on the basis of the most economic decisions at the time for connected customers as a whole. On this basis it becomes inequitable to discriminate in terms of a customer's individual point of connection because of past planning decisions. All customers in the same geographic area should therefore pay the same network price for the same level of service.

The network price levels for the heavily congested feeders would need to be higher than the average price to discourage new consumption. In order to achieve this, it would be necessary for the distributor to introduce a two tiered network price regime. A set of higher prices would be applied to new connected loads and a set of average network prices would be maintained in order to avoid penalising existing load customers. The two tiered approach would apply equally to all customer classes including residential connections. The Tribunal would need to provide additional flexibility in regulatory price controls in order to pass through the higher network price and, at the same time, allow regulated retail prices to be reset at higher levels in order to pass through the increased network price.

The Tribunal proposes a pilot option to encourage the introduction of congestion related network pricing structures. Country Energy believes that the initial step should be for the distributors to unbundle the transmission component from the distribution component for all network prices. To date the distribution and transmission components of distributors' network prices has not been separately published. In fact, the National Electricity Code states at clause 6.10.2 that a Jurisdictional Regulator must seek to:

"...provide(s) for the recovery by Distribution Network Service Providers of Customer TUOS usage charges from those Distribution Customers that have a metering installation capable of capturing relevant transmission system and distribution system usage data, in a way that preserves the location and time signals of the Customer TUOS usage prices;"

There is some concern with the ability of distributors to comply with this Code requirement. In our opinion there is little value in wrestling with the introduction of new distribution network congestion price structures until transmission costs have been fully unbundled and the economic price signals arising from transmission charges are fully passed through to customers.

This proposal could be achieved in conjunction with the detailed formulation of price controls, to apply for the 2004 regulatory price reset, by creating two “baskets” of distributors’ network prices for the use of the network comprising of prices for distribution services and prices for the recovery of transmission charges, the latter subject to customer metering. Separate regulatory control and re-balancing constraints on the annual increase in individual distribution and transmission prices would be designed and applied to not obstruct the construction and introduction of the new efficient transmission network prices. The constraint applied to the distributors’ transmission prices, would enable the distributor to earn revenue from these prices sufficient to recover transmission related costs.

This approach would allow the distributor to pass-through fully the current transmission pricing structure and economic pricing signals for the transmission connection point to which the customer is connected, and the integration of transmission network congestion pricing signals over time. This approach would not be technically difficult to achieve. The distributor would publish their approved distribution and transmission network prices separately. Country Energy would want to set out an intention and methodology for the unbundling of transmission prices in the next publication of the Network Price and Services Report.

### **Consider Mechanism to Encourage DM at Regulatory Reset**

Country Energy is supportive with the Tribunal’s proposal to introduce a weighted average tariff basket form of price control as outlined in the Tribunal’s *“Draft Notice under Clause 6.10.3 of the National Electricity Code – Economic Regulatory Arrangements”*. The tariff basket approach meets the requirement for efficient and cost reflective pricing and facilitates a closer alignment of price and cost structures than the current revenue regulation.

The relative importance of the relationship between the form of economic regulation and the execution of demand management policy is low. The most effective and efficient mechanism of ensuring that the distributors are undertaking demand management is through the application of a capital expenditure prudence test as part of the regulatory reset pricing review.

### **Review Policy for Roll-out Meters to Residential Customers**

The Tribunal believes there is merit in a more rapid roll-out of interval meters but this needs to be carefully balanced against costs. Country Energy believes that the installation of half-hourly export metering for the smaller single phase generators is likely to be expensive and uneconomic until volumes increase. We therefore support a move to develop a cost-effective interval metering strategy to increase the penetration of interval meters as currently being reviewed by the Essential Services Commission. In our opinion, the recovery of interval metering costs is best regulated as an excluded service.

### ***Develop a Market Framework for Small Generators and Support the Development and Implementation of Smart Metering***

Country Energy considers it important to establish a workable and comprehensive standard arrangement for the installation of small generation and for the associated pricing and charging mechanisms. An appropriate and consistent policy for the metering of small distributed generation is therefore required. The bulk of existing metering used for domestic and small commercial premises has a reverse stop, which prevents them from displaying a net registration of imports and exports. The installation of micro-generation at a household or small commercial customer's premise requires the development of a policy on metering.

The Tribunal has indicated its support for the introduction of a simple net metering approach as the most appropriate approach for residential (and presumably small commercial) embedded generation as a means of reducing transaction costs. Whilst it is agreed that there is a need to decide on appropriate metering arrangements for small generation, Country Energy has some concerns with the Tribunal's net metering proposal. Net metering does not support the needs of distributors, as it does not allow network use of system charges to be levied on the separately metered imported units. Country Energy considers the independent accurate measurement of import and export quantities as a minimum for all distributed generation, including the smaller household distributed generation connections.

This requirement may not be too expensive for household applications. Import and export metering need not be complex and there is a range of basic metering options for measuring power flows in both directions in domestic and small commercial premises. The marginal cost of installing a separate export active power meter would be relatively minor compared to the cost of an embedded generation project.

There are merits in separately metering generation and consumption energies including:

- Separate handling of exports for network support contractual purposes;
- Validation of generator operation and energy outputs, particularly for verification of standard offerings;
- Avoidance of cross-subsidy from demand to distributed generation (net metering would mask the cross-subsidy);
- Consolidation of output with similar sites for energy trading purposes;
- Ensures that customers receive their fair share of benefits and rewards from micro-generation eg RECs;
- The scope for detecting tampering and meter security in general is reduced when a net (bi-directional) meter is used in domestic premises; and
- Allows additional flexibility and allows the development of more sophisticated charging methodologies and capabilities for both import and export in the future than those currently in use.

The Tribunal has proposed to make the installation of smart metering mandatory for embedded generation. Metering technology is not at present the problem, although the cost of paying for this form of metering might be a deterrent to the implementation of such a policy. Suppliers would also have a key influence on choice of metering for domestic generators. The installation of half hourly metering for three-phase distributed generation is supported. The generation meter would, if required, provide for half-hourly data for settlements and provides benefits for energy trading. However, Country Energy considers that the installation of half-hourly export metering for the smaller single phase generators is likely to be expensive and uneconomic, outweighing the value of the electricity exported until volumes increase and/or energy suppliers trade significant consolidated quantities of export from these installations.

If you have any questions or wish to discuss this response, please do not hesitate to contact either Mr Terry Holmes on 6582 8694 or Mr Lawrence Zulli on 6883 4547.

Yours sincerely

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