



Ref: LZ:JC

28 February 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**

Attention: Anna Brakey

Dear Dr Parry

### **Form of Regulation for NSW Distribution Network Service Providers**

Please find attached Country Energy's response to the recently released *"Discussion Paper on the Form of Regulation for NSW Distribution Network Service Providers"*.

The discussion paper provides high level information regarding the proposed forms of regulation. It also introduces two new options, which were not discussed in the initial discussion paper DP48 *"Form of Economic Regulation for NSW Electricity Network Charges"* released in August 2001, namely:

- Option 4 – Variable Revenue Cap
- Option 5 – Rolling Growth Variable Revenue Cap

Due to the relatively short timeframe provided to respond to the second discussion paper and the new options presented, the attached submission is provided subject to approval by the Country Energy Board and Executive.

Country Energy's service area is characterised by relatively stable load growth where pockets of relatively high growth along the northern and southern coastal regions are generally offset by relatively stagnant growth in inland areas. This has meant that during the course of the current regulatory period, Country Energy has been able to achieve its allowable revenue under a revenue cap arrangement and has not been capital constrained to the same degree as the distributors operating in metropolitan NSW. However, the revenue cap has many undesirable features and shortcomings, which were clearly articulated by many stakeholders at the recent public forum.

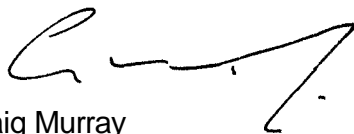
In consideration of the relative merits of the remaining options presented in the discussion paper, Country Energy believes that intuitively the preferred solutions are either a tariff basket form of price control or the "hybrid" rolling growth variable revenue cap form of revenue control. In theory both these approaches would be acceptable. However, the final decision on the preferred choice between these two options would depend on how each is designed.

It needs to be recognised that it has been difficult to identify a preferred model and to fully discuss the relative merits of the proposed approaches, as there has not yet been sufficient investigation and complete analysis by the IPART Secretariat. We would urge the Tribunal to undertake more systematic analysis on the relative performance of these "preferred" options to provide a greater understanding to all stakeholders of the potential impact on customers and the distributors, and the development of a more concrete formulation of the preferred controls to determine how each would operate in practice, and for this final formulation to be fully communicated and published prior to July 2002.

We urge the Tribunal to enter into open dialogue with the distributors in relation to the development of a more detailed form of control. We believe a working group would be valuable in progressing this matter. Country Energy would be willing to participate in a more detailed analysis to develop an acceptable model for the future.

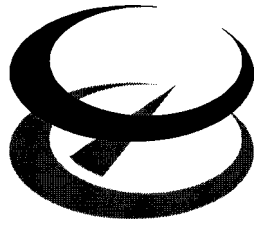
We look forward to further consultation on this important issue in the lead up to the upcoming 2004 electricity distribution pricing review. If you require further information or clarification in relation to this submission, please feel free to contact Terri Benson on (02) 6338 3424 or Lawrence Zulli on (02) 6883 4547.

Yours sincerely



Craig Murray  
**Managing Director**

Att.



**countryenergy**

**SUBMISSION  
BY COUNTRY ENERGY TO THE IPART SECRETARIAT  
Discussion Paper**

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**FORM OF REGULATION FOR NSW  
DISTRIBUTION NETWORK SERVICE  
PROVIDERS**

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28 February 2002

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## 1 SUMMARY

The IPART Secretariat discussion paper provides high level information regarding the proposed forms of regulation. It introduces two new options, which were not discussed in the Discussion Paper DP48 *Form of Economic Regulation for NSW Electricity Network Charges*, namely:

- Option 4 – Variable Revenue Cap
- Option 5 – Rolling Growth Variable Revenue Cap

As a general comment, it has been difficult to identify a preferred model and to fully discuss the relative merits of the approaches, as there has not yet been sufficient investigation and a more complete analysis of the impact of these options on customers and the distributors. In our opinion, testing with empirical data would provide a much greater understanding of the implications of all five options, including the preferred options. This detail would drive most of the main issues and concerns.

Country Energy therefore recommends that more systematic analysis be carried out in relation to the respective performance of each option under different types of applications. This will assist in arriving at a balanced judgement.

During the course of the current regulatory period, Country Energy has experienced relatively low growth throughout its service area, in which pockets of high growth along the northern and southern coastal areas of the franchise have been smoothed by relatively stagnant growth in inland areas. We have therefore not been capital constrained to the same extent as in metropolitan NSW. Country Energy is therefore indifferent to the present form of revenue control.

However, in consideration of the relative merits of each option, Country Energy believes that the preferred solution for the form of control is either a tariff basket form of price control or the “hybrid” rolling growth variable revenue cap form of revenue control, which provide clear advantages over the present form of control.

Both of these controls are intuitively attractive in terms of appropriately allocating risk between distributors and network users, dampening profit/earnings volatility, maintaining financial viability for the distributor, promoting efficient behaviour by providing the incentives to meet efficient demand, encourages efficient pricing (to varying degrees) and would maintain consistency with an incentive based regulatory framework.

In theory both these approaches are acceptable to Country Energy. However, in our opinion, the choice between these options will depend on how each is designed:

- In the case of the tariff basket control, such design issues include the choices for re-balancing controls, use of known variables such as past historical data in terms of a set of weights, introduction of new and restructured network prices, the number of tariff baskets, pass through of uncontrollable costs and assumptions about price structure.

- In the case of the “hybrid” model, such design features include the information demands and regulatory burdens, the determination of the “g” factor and selection of cost drivers, the determination of marginal cost elements are key considerations both in the establishment and operation, which can make this form of control unduly complex.

The clear advantage of the tariff basket is that its operation can be designed to be less complex than the revenue forms of control, which require a correction mechanism and forecasts, and will reduce administration burden.

However the implementation of limits on price movements will prevent or slow the move to more cost reflective pricing, stifle innovation and potentially lead to an increased level of financial risk as compared to the hybrid. In our opinion, a regulatory statement underlying the principles to be used to establish the level of side constraints must be made before a more conclusive statement can be made on the tariff basket model.

The revenue yield and pure revenue caps demonstrate many undesirable features and shortcomings. Country Energy believes that the pure revenue cap and in particular, the revenue yield approach, can expose the distributor to significant profit/earnings risk, because there is little relationship between revenues and costs. As distributors have very limited ability to influence demand, these form of control would unnecessarily increase risk associated with demand volatility. Additionally, the pure revenue cap approach does not necessarily offer an incentive to a distributor to expand distribution services to meet expanding demand or generally respond to change. In our opinion, a focus on pure revenue limits with restrictive side constraints may lead to a potential deterioration in the provision of distribution services and volatility in prices in high growth areas.

The advantage of a hybrid form of regulation is that the total revenue can track total costs more closely than under the alternative approaches to revenue regulation, insulate the risk of volatile profits, without the disincentive effects of the revenue cap.

Country Energy therefore recommends that more systematic analysis be carried out of the performance of the tariff basket control and the hybrid model proposed under different types of applications. This will provide greater understanding of how the selected model would be applied in practice and the associated impact on customers and the industry.

## 2 CRITERIA FOR ASSESSING THE FORM OF REGULATION

*The Tribunal welcomes comment on the criteria that it should adopt in assessing the form of regulation.*

Each of the forms of regulation has different implications for each of the objectives and principles as outlined in the discussion paper. Whilst generally supportive of the criteria for assessing the alternative forms of regulation, we believe the Tribunal should focus on those principles and objectives in the order of priority as listed below.

## Revenue and Profit Risk and the Allocation of Risks between Distributors and Network Users

In our opinion this is a critical element in the present review.

The choice of control can have a direct impact on revenue and profit/earnings volatility which has implications for financial risk, particularly that risk which is driven by volume/output fluctuations which is outside the control of Country Energy.

As to the question of exactly which parties should be made to bear which risks. In principle, risk should be allocated to that party best able to manage it. Therefore we believe greater emphasis should be placed on determining which party can influence the degree of risk by their actions.

In particular, there are controllable and uncontrollable risks. In relation to the latter, the particular risks of demand fluctuations and who should bear those risks is a key element. As distributors have very limited ability to influence demand and energy throughput, the selected form of regulation should not artificially increase the risk of volume volatility to the distributor. An increase in risk to the distributor would translate into an increase in cost of capital, which is ultimately borne by customers in the price of service.

At the same time, it should be recognised that customers should not be required to fully bear risk for volume changes, which is characteristic of the current form of revenue regulation. The use of a revenue cap shifts volume risk from the distributor (and hence its shareholder) to the customer. Price control implies that the distributor bears the risk.

## Maintaining the Financial Viability of the Electricity Supply Industry

The form of control needs to provide a commercially sustainable regulated revenue stream to ensure business viability by recovering efficient operating costs, a commercial return on investments to encourage ongoing efficient investment, include a pass through of uncontrollable costs such as transmission charges and other pass through costs.

## Encouraging Efficient Pricing

The form of control should be consistent with providing incentives to the distributor to set efficient prices so as to encourage efficient use of energy by customers.

However in our opinion a much broader and more critical issue, in terms of achieving this outcome and in terms of the overall context of the current review of the form of regulation, is price re-balancing. The “incentive” to move to cost reflective prices would be mitigated to some degree by re-balancing constraints. The determination of any side constraint imposed on the distributor necessarily involves a balancing of public policy and efficiency objectives.

## Promoting Efficiency and Efficient Behaviour

The form of control should not encourage the distributor to restrict or to increase output when it is not efficient to do so and at the same time, should provide incentives for the distributor to meet that efficient level of demand. Promoting efficiency therefore includes maximising dynamic efficiency so that innovation and investments decisions lead to efficient outcomes over time.

## **Providing an Efficient and Cost Effective Regulatory Regime that Provides Reasonable Certainty and Consistency**

Country Energy fully agrees with this criterion in the sense of minimisation of regulatory intervention and cost for the distributor. This would equally apply to the IPART Secretariat. The form of regulation should not be overly complex in both its establishment and operation, enabling ease of understanding and interpretation.

## **Providing an Incentive Based Regime**

Incentive based regulation requires that distributors be allowed to retain for an extended period a proportion of the gains realised as a result of efficiency improvement, so to provide them with an incentive to make such improvements. This is an important criterion for effective regulation as it provides an incentive for distributors to maximise opportunities for efficiency improvement. By encouraging efficiencies, customers can gain a portion of efficiency improvements made by the distributors, which are passed through into prices.

## **Demand Management**

Country Energy is generally supportive of the implementation of **DSM** initiatives that can be justified on economic grounds and to the extent that it is timely, practical, ensures outcomes and materially influences the cost of providing network services. Cost effective deferral of capital investment in network assets and efficient pricing should be the appropriate focus for economic regulation.

In our opinion, the key barriers to wider use of demand management have been the absence of incentives for distributors in the current regulatory framework. We believe that providing incentives for DSM should be separated from the selection of a form of the control and should be a matter for the prudence test and the provision of regulatory incentives to encourage distributors to contract for network capacity support services.

We believe the following are key issues in meeting these objectives:

## **Price, Revenue and Profit Volatility**

The choice of control can have a direct impact on income and profit/earnings volatility, particularly that risk which is driven by output fluctuations which is outside the control of Country Energy. As distributors have very limited ability to influence demand and energy throughput, the selected form of regulation should not artificially increase the risk of demand volatility to the distributor. Equally, the form of control should provide price certainty and not lead to artificial price shocks, distortions and fluctuations.



## Flexibility to Re-balance Prices

Flexibility to re-balance network prices between various customer classes should take place, but this is constrained by re-balancing controls. There is a need to consider re-balancing constraints and the appropriate form of these constraints, particularly the principles to be used to determine whether and what magnitude of re-balancing constraints will be required. Without a statement of these principles, the process for determining re-balancing limits is unlikely to be transparent.

## Reliance of Forecasts and Correction Factors and Impacts when Forecasts are Inaccurate

There is some uncertainty in relation to the methodology to be employed in determining the X factor to be applied over the new regulatory period, and in particular, to quantify the change from the current regulatory period and the new regulatory period. The discussion paper is generally silent on this issue.

Country Energy acknowledges that the present review of the form of regulation is not the most appropriate avenue to discuss the X factor, however there are a number of issues which need to be considered by the Tribunal in relation to the determination of the X factor before the operation of the regulatory control mechanism can be more fully explored. A statement of principles relating to the methodology for determining the X factor is likely to increase the transparency of this process.

Some of the issues that require consideration include:

- The level of detail of required forecasts and transparency in the way demand forecasts are used to set X;
- The assumptions to be made by the Tribunal in relation to forecasts;
- The allowances for forecasting error in recognition of the fact that volume or demand (and associated risk) is generally outside the distributor's control; and
- Overall minimising the complexity in the setting of the X factor.

In relation to correction factors, unders or overs revenue that exist under the present revenue cap must be carried over. Additionally, we believe that a correction factor is needed for transmission charges under all options.

## Pass Through of Uncontrollable Costs

Pass through costs and distribution prices are intrinsically linked and as such are an important component to be addressed. The discussion paper contains little information on price controls for transmission charges and other pass through costs. Country Energy requests clarification of the pass through of uncontrollable costs and the methodology to be applied. Country Energy assumes that IPART will have similar mechanism in place to allow pass through of TUOS and other costs in the form of regulation.

## Providing the DNSPs Flexibility in Pricing (Encouraging Efficient Pricing)

The flexibility of the form of regulation with respect to providing the ability and incentive to the distributor to change network price structures and/or the introduction of new prices, is an important issue.

### 3 OPTIONS FOR THE FORM OF REGULATION

*The Tribunal invites comments on all aspects of the form of regulation.*

#### OPTION I – PURE REVENUE CAP

Country Energy is not opposed to the implementation of a revenue form of economic regulation. Although we do not believe it is the most appropriate form of regulation.

Our operating environment is characterised by a steady low level underlying growth pattern and the distribution business has not been capital constrained to meet expanding demand, as has been evident in the metropolitan areas of NSW. Country Energy is at present marginally over recovering its allowable regulated revenue under a review cap and we expect to be marginally under recovering at June 2004 (not taking into account FRC pass through costs). Country Energy is therefore relatively indifferent to the present form of revenue control.

##### ***Desirable Features***

- ***Revenue Certainty***

The advantage of the pure revenue cap is that it provides a distributor with guaranteed revenue, regardless of volume, and as such reduces volatility in profitability provided that volumes (and thereby costs) are aligned with the allowed level of revenue.

- ***Provides an Incentive to Minimise Costs***

Distributors may have an incentive to minimise costs, since the permitted revenue remains fixed.

##### ***Undesirable Features***

Whilst there may be benefits for a distributor with consistent low level growth to opt for a pure form of revenue control, there are a number of distinct disadvantages to be recognised with this form of control.

- **Potential for Profit/Earnings Risk**

There is little relationship between actual revenues and costs, implying potential for profit volatility. As such any change in the underlying cost drivers may not necessarily be reflected in the allowed level of revenue if forecasts turn out to be inaccurate.

Where volumes exceed those reflected in the revenue cap it is likely to reduce profits since the distributor will incur the marginal costs associated with additional volumes but it is not allowed to retain any of the additional revenues.

This can mean that distributors can sustain significant losses, if actual costs turn out to be different from forecasts.

Overall risk to the distributor is offset to a degree by the integration of a cost pass-through in the control mechanism. However, a pass through mechanism is not currently offered for capital expenditures, where the risk of capital costs following fluctuations in demand is borne by the distributor, which has been evidenced in the metropolitan areas of NSW.

In this form of control, customers bear an unnecessary level of volume risk. The risk associated with fluctuations in volume is borne directly by customers because the distributor's allowed revenue remains the same whatever the level of volume throughput. In our opinion, the distributor should bear some element of risk.

- **Complexity and Administrative Burdens**

Regulatory burdens are higher as this form of control requires volume forecasts and an error correction mechanism to manage variances between actuals and forecasts.

- **Potential for Inefficient Behaviour (Service Provision)**

By not having a link between actual revenues and volume, a revenue cap does not necessarily offer an incentive to a distributor to expand distribution services to meet expanding demand or generally respond to change, because to do so would mean an increase in cost without a corresponding increase in revenue. This may mean that distributors would be reluctant to attract new customers.

In fact this form of control may create an incentive to minimise the cost of service provision, since allowed revenue will remain unaffected, resulting in improved profitability. This may lead to a potential deterioration in the provision of distribution services.

Therefore a focus on pure revenue limits reduces the distributor's ability to meet new demand for services. The removal of this ability takes regulation away from the concept of incentive based regulation.

Additionally, revenue caps may even create a perverse incentive to lose customers, as some costs may be avoided where they are not fixed. These characteristics are totally against Country Energy's customer philosophy. This form of control may induce opposite behaviour to that routinely associated with commercial success.

- **Leads to Inefficient Pricing and Price Fluctuations**

Pure revenue caps create very poor incentives for efficiency.

The unders and overs account has not worked well in areas of high growth. The revenue cap has not been reflected in stable prices.

## **OPTION 2 – REVENUE YIELD CAP**

The revenue yield approach is not supported by Country Energy.

This approach would expose Country Energy to a significant degree of risk, associated with volatility in profits, due to a poor link between revenues and costs. A distribution network tends to be characterised by high proportion of fixed capacity related costs, which are not directly linked to energy consumed. As distributors have very limited ability to influence demand, this form of regulation would unnecessarily increase risk associated with demand volatility.

### ***Desirable Features***

- ***Provides an Incentive to Minimise Costs***

Distributors may have an incentive to minimise costs, since the permitted average revenue per unit of output remains fixed.

### ***Undesirable Features***

- ***Financial Risk***

There is no link between marginal revenues (average allowed revenues) and marginal costs, such that a shift in demand may lead to volatility in profits.

Under the tariff basket, the distributor has an opportunity (subject to side constraints) to minimise profit/earnings risk through the application of price structures where the components better reflect the costs of service provision. The distributor under the tariff basket has therefore some means and a potential incentive to reduce the profit risk it faces. The revenue yield approach creates an increased financial risk associated with volume volatility, which is inappropriate given that the distributor generally has limited ability to influence demand. The distributor faces profit risk no matter what price structures it adopts.

Additionally, revenues are determined by sales which exposes distributors to revenue risk if load growth is significantly different from forecast. This is because allowed revenue is closely tied to the quantity distributed.

The greater variability in earnings would increase the cost of capital, which would be borne in higher customer prices for services.

- **Complexity and Administrative Burdens**

The revenue yield approach uses forecast quantities to set average revenues, which introduces an element of complexity as compared to the tariff basket. Due to the forward looking nature of the model, an error correction mechanism is required for variations of actual consumption against forecasts.

- **Leads to Inefficient Prices and Price Fluctuations**

The revenue yield form of regulation assumes that distribution costs are entirely related to energy consumption, which is inaccurate, and as such may provide an “incentive” to design price structures which do not reflect cost structures.

That is, it may provide an incentive for distributors to adopt a pricing strategy, which encourages increases in volume distributed, particularly where total demand can be increased at relatively low marginal cost. This may lead to inefficient pricing. However this “incentive” would be mitigated to a degree by re-balancing constraints.

### **OPTION 3 – TARIFF BASKET CONTROL**

Country Energy is not opposed to the adoption of a tariff basket, as the form of control, as it creates a link between the revenue earned by the distributor and its network price structure.

However, Country Energy has a number of concerns in relation to the tariff basket proposal in terms of how it would achieve the key objectives identified. The tariff basket provides incentives, which work in the opposite direction to the side constraints, that is, the tariff basket cannot simultaneously produce cost reflective prices whilst also protecting the interests of customers.

To the extent that the tariff basket allows prices to be re-balanced without restrictive side-constraints and it promotes the introduction of new tariffs, rather than inhibiting them, Country Energy is not opposed to the approach.

For this price control to be successful for Country Energy, the Tribunal would need to provide flexibility in setting and adjusting prices. It should be recognising that it is not in Country Energy’s interests to impose price shocks on our customers. It is our view that side constraints are not needed as the distributor has the incentive to manage prices in a way which is both efficient and equitable and which maintains a positive public profile.

If side constraints are used, they should be set at the broadest level. An effective approach would be to allow customers to voluntarily choose to switch to a new network price, whilst the old network price is increased over a reasonable timeframe approved by the Tribunal to create the incentive for the customer to switch. Under the current side constraints, it is difficult to ramp up the old network prices quickly enough and creates a significant disincentive for the distributor to introduce new network prices. We would also urge the Tribunal that any side constraints do not unduly increase the complexity of the tariff basket and do not unduly influence our ability to introduce new tariffs.

To avoid confusion with the practical operation of the tariff basket formula proposed by the Tribunal, it is recommended that the “Y” factor be integrated into a single “X “ factor. The “Y” factor would otherwise apply equally to options 4 and 5.

Separate baskets and side constraints should apply to transmission and distribution components, as Country Energy has no control over the level of transmission costs.

### ***Desirable Features***

Country Energy can see some potential benefit in the tariff basket model if appropriately designed, namely:

- ***Relatively Stable Profit/Earnings***

To the extent that network prices reflect the underlying costs of service, distributors will not be exposed to the same level of risks associated with changes in profitability as volumes change, as is characterised by the revenue yield approach. The key caveat is the degree to which network prices reflect underlying costs and therefore total revenues track costs as volumes change, limiting the financial risk faced by distributors.

However the costs of a distribution business is characterised by large sunk/fixed costs which is not necessarily reflected in Country Energy’s network price structures, which are heavily reliant on metered energy. This would imply that distortions would remain.

- ***Encourages Efficient Pricing***

The tariff basket “theoretically” achieves an efficient pricing outcome, as there is a conceptual link between costs and distribution prices.

Tariff baskets encourage price differentiation between distribution services and creates incentives to adopt efficient pricing strategies and to set network price structures that are more efficient and better reflect the underlying cost of service provision. This “theoretically” reduces the profit risk of the business.

But it must be recognised that this presumes that substantial degrees of freedom are provided to the distributor for re-balancing of prices, which is currently not the case.

- ***Ease of Administration***

Tariff basket controls can be designed to be very light handed, particularly if they operate on known variables such as past historical data when computing allowed prices.

This reduces reliance on forecasting of volume requirements and subsequent corrections in the proposal, and removes the need for verification and reduced administration burden. This would minimise the complexity of the applicable formula and would be less complex than the revenue forms of control. This is however distinct from its establishment (see below).

This advantage may be replaced with greater reliance of using forecasts in the setting of the X factor and in setting new network prices.

- **Encourages Efficient Behaviour**

Provides an incentive for a distributor to meet efficient demand, which is not the case with a revenue cap.

Relies on historical quantities and as such does not provide an incentive to bias prices in order to affect future revenue.

The IPART discussion paper notes that this form of regulation provides scope for revenue maximising by setting high prices in the tariffs where strong growth in demand is expected. The extent to which this option would be pursued is difficult to assess and it is noted that the discussion paper is silent in relation to empirical evidence. In any case, higher prices would dampen growth depending on the elasticity of demand.

- **Demand Management**

Country Energy believes that tariff baskets are likely to be more effective in promoting cost effective DSM, as this form of price control is more likely to promote efficient prices. This was explored thoroughly in the NSW distribution businesses' submission to the Tribunal's discussion paper DP48. Revenue caps are touted in terms of DSM but this form does not promote efficient DSM as it leads to inefficient prices.

### **Undesirable Features**

However these benefits need to be considered with reference to a number of disadvantages that may result.

- **Potential Increased Level of Financial Risk as compared to the Pure Revenue Cap**

The proposal may involve an increased level of risk as compared to what Country Energy is exposed to currently in the form of a revenue cap. The increased level of risk arises from two main sources, namely greater exposure to volume risk (revenue and profit/earnings) and regulatory risk. This would otherwise increase the cost of capital.

The profit risk is dependent on the price structures in place. The proposed model implies that in the medium term prices are linked to costs and thereby "theoretically" reducing the profit risk for the business, However tariff structures are variant in Country Energy and in general do not necessarily reflect underlying fixed and variable costs primarily due to historical reasons and the pricing policies of predecessor distributors. For Country Energy this would require a significant amount of adjustment to current prices over time to reduce price shocks, and as such revenues may not move in line with costs as volumes change. Country Energy will therefore be exposed to risk associated with changes in profitability as volume change.

Additionally, revenue is more variable and riskier, as compared to the revenue form of regulation, including risk from changes in demand due to exogenous factors. If IPART does not adopt a conservative approach to demand forecasts, Country Energy is likely to be exposed to additional risk.

The proposed tariff basket approach removes a system where volume forecast errors were corrected and replaces with a system that does not correct for errors. In addition it assumes that future load and customer/tariff mix patterns will not differ substantially from patterns in the previous two years. Whilst this would be a reasonable assumption, parts of the Country Energy network are exposed to potential large mining connections and disconnections, where this may not be the case.

There are also practical problems and risks associated with the take up of new tariffs, which can be difficult to estimate accurately. This will not be a precise process and will present the distributors with a number of difficulties, which may result in gains and losses.

- ***Establishing the Tariff Basket will be Complex (as opposed to its operation)***

Establishing the tariff basket appears to be a complex and information intensive exercise requiring forecasts of each component of each network price and/or making an assumption about price structures which has a very high probability of error. In the discussion paper the following comment is made ... “the Tribunal would need to make an assumption about structures”. This is of concern to Country Energy as it introduces an additional dimension of risk given the number of legacy network prices inherited by Country Energy from the predecessor distributors and the variability in the level and structure of our current network prices. Country Energy is therefore strongly opposed to the use of assumed or average network price structures into the establishment of the model. We believe actual tariff structures should be used and seek further clarification on this issue.

## **OPTION 4 – VARIABLE REVENUE CAP**

Option 4 provides a novel alternative approach to the form of regulation. It is similar in form to Option 5 but does not feature a growth-related element, and as such will not allow revenues to track costs as volume increases. We believe that this form of regulation provides for revenue instability and significant price fluctuations, particularly where seasonal spikes occur. Because revenues do not track costs, this form of regulation may lead to unstable earnings, and is therefore not a preferred option.

## **OPTION 5 – ROLLING GROWTH VARIABLE REVENUE CAP**

Country Energy does have some interest in this “hybrid” form of control that would roll forward the revenue requirement for the first year according to movements in underlying costs.

We understand that under this arrangement, allowed revenue can vary with increased output, whilst there is some degree of certainty in the level of income, which we understand would reflect the fixed costs of providing distribution services.



The pure revenue cap has the potential to provide an artificial disincentive for distributors to reduce distribution services or not to expand services to meet new demand. This is clearly an undesirable feature of that form of revenue regulation. In our opinion, a formulation of revenue regulation that retains elements of both revenue and price cap forms of control and has both “fixed” and variable revenue elements and which would compensate for the disincentive effect of the pure revenue cap, by linking the allowed revenue to distribution cost drivers to proxy changes in costs arising from changes in customer numbers, demand, etc is preferred to the pure form of revenue regulation and the variable revenue cap.

A hybrid form of control would reduce risk to the distribution business by dampening profit volatility.

### ***Desirable Features***

- ***Potentially Dampens Profit/Earnings Risk***

Part of the attraction of this approach for Country Energy is that movement in prices aligns fairly closely with movements in the distributors unit costs, thereby considerably reduce the volatility of our profits during a given regulatory period. Therefore because allowed revenues move more closely in line with costs, then the financial risk borne by the distributor is lowered, since profits move more closely in line with volumes.

In our opinion, this form of control, if properly designed so that the variable revenues approximates variable distribution costs, would best mirror our distribution business cost structure and the steady growth patterns experienced by Country Energy and minimise the risk profile that we would face. However if variable allowances do not approximate variable costs, then this will increase profitability risk. The key element is therefore the derivation of marginal cost weights.

- ***More Efficient Pricing as Compared to Revenue Cap***

A greater degree of cost reflectiveness under conditions of changing volumes (as compared to revenue cap) assists in achieving an improved economic efficiency via improved price signalling, as compared to the revenue cap. This in turn highlights that effective implementation of a hybrid form of control is highly dependent on reliable estimates being made of the responsiveness of costs to variations in volume levels.

- ***Encourages Efficient Behaviour***

This form of control would minimise the potential economic distortions created by the “pure” form of revenue cap. It provides a link between increased allowed revenue and increased volume, which avoids the disincentives present under a pure revenue cap. It also provides a greater incentive than the pure revenue cap to seek out and develop electricity supply to meet growth and the needs of customers. It gives the distributor incentives to encourage new customers into its area, thus reducing its average cost.

## **Undesirable Features**

- **Complexity and Administrative Burdens in the Establishment and Operation**

The establishment and the operation of this form of control are likely to be complex, as it is likely to require more detailed and intrusive regulation and will be very burdensome to the distributor and the Tribunal. Regulatory burdens are likely to be higher than with any other form and impose many information and administrative burdens on distributors, and will place greater information requirements on IPART.

The effectiveness of this form of control mechanism is highly dependent upon the variable elements (cost drivers) selected and the setting of the marginal cost weights, as encompassed by the 'g' factor. The variable elements of the hybrid will need to accurately reflect the cost drivers of the network business. The Tribunal must determine appropriate weights on changes in these cost drivers, namely customer numbers, demand, and distance/space. For example, peak demand in each part of the network is an important driver of cost, more so than energy distributed. An appropriate split will also need to be developed for the fixed and variable elements.

The application of a single set of weights for all distributors would not be appropriate. Distributors face differences in operating conditions that affect the marginal costs of connecting and delivering power to customers. In principle, the Tribunal would have to quantify a control for each of these factors. Accounting for these differences in operating conditions by quantifying differences in marginal rather than unit costs is likely to be difficult. The distributor is best placed to determine customer and volumetric charges that appropriately reflect its own circumstances.

Estimating system-wide "average" marginal costs for Country Energy's expansive network would present a significant challenge to the Tribunal, and there is likely to be a high probability of error. Additionally, marginal costs for some distribution services in certain regions of our network may differ from the system wide average marginal cost. Where this occurs it can lead actual costs to deviate from the average cost changes that may be expected from the form of control for a given change in volumes.

The marginal cost weights would likely have to be reviewed to ensure that they remain appropriate over time, as the operating conditions may change. This can add to uncertainty and regulatory risk since there is an incentive (and often a need) for the Tribunal to adjust the allowable revenue equation at each price review.

Equally, it should be recognised that costs are not symmetrical. That is, an increase in demand generally requires an increase in capital and operating expenditure, but decrease in demand is not necessarily reflected in a decrease in costs.

## 4 CONCLUSION

In consideration of the relative merits of each option, Country Energy believes that the preferred solution for the form of control is either a tariff basket or the “hybrid” rolling growth variable revenue cap form of control. Both of these controls are intuitively attractive in terms of appropriately allocating risk between distributors and network users, dampening profit/earnings volatility, maintaining financial viability for the distributor, promoting efficient behaviour by providing the incentives to meet efficient demand, encouraging efficient pricing (to varying degrees) and would maintain consistency with an incentive based regulatory framework. In theory both these approaches could be acceptable to Country Energy.

However, in our opinion, the choice between these options will depend on how each is designed:

- In the case of the tariff basket control, such design issues include the choices for re-balancing controls, use of known variables such as past historical data in terms of a set of weights, introduction of new and restructured network prices, the number of tariff baskets, pass through of uncontrollable costs and assumptions about price structure.
- In the case of the “hybrid” model, such design features include the information demands and regulatory burdens, the determination of the “g” factor and selection of cost drivers, the determination of marginal cost elements are key considerations both in the establishment and operation, which can make this form of control unduly complex.

It is anticipated that questions relating to the specific formulation and parameters of the control mechanism will be considered by IPART once the preferred forms of control have been selected. This presumably will provide greater understanding of how the selected model would be applied in practice and the associated impact on customers and the industry. Country Energy therefore recommends that more systematic analysis be carried out of the performance of the tariff basket control and the hybrid model proposed under different types of applications. Country Energy would be willing to participate in a more detailed analysis of these forms of regulation to develop an acceptable model for the future.