Lumley House
3-11 Hunter Street
PO Box 1925
Wellington 6001
New Zealand

Tel: 04 496-6555
Fax: 04 496-6550
www.businessnz.org.nz

1 March 2013

Submissions
Electricity Authority
PO Box 10041
WELLINGTON 6143

via e-mail: submissions@ea.govt.nz

# Transmission Pricing Methodology Review – Issues and Proposal

BusinessNZ is pleased to have the opportunity to provide a submission to the Electricity Authority on its consultation paper entitled 'Transmission Pricing Methodology Review – Issues and Proposal' dated 10 October 2012.[1]

## Introduction

BusinessNZ welcomes the effort evident in the consultation paper released by the Electricity Authority. It is clear that the Electricity Authority has endeavoured to progress its work on a revised transmission pricing methodology (the 'TPM') in a thorough and thoughtful manner. In particular, we support the initiative that the Electricity Authority has shown at looking beyond the well-worn routes so regularly traversed over the past decade in its search for new, innovative solutions that might act as a 'circuit breaker' to the on-going debate over the TPM.

However, the corollary to innovation in the regulatory sphere must be a high burden of proof as reflected in a demonstrably clear and certain net benefit to consumers. Any TPM also needs a high level of market participant and consumer support for it. To achieve this, the Electricity Authority needs to be receptive to proposals from submitters that that will improve the proposal in a

[1] Background information on BusinessNZ is attached in Appendix One.

way that meets its efficiency objectives and enable those who pay (particularly small to medium enterprises) to have a much better chance of understanding and managing it.

Without these fundamentals, regulatory instability and uncertainty will prevail, undermining investor and consumer confidence at the very time that business confidence in the operation of the electricity seems to have stabilised. We reiterate our previous observation that if the proposals are genuinely to the long-term benefit of consumers then you would expect a high degree of consumer support.[2]

## Comments

BusinessNZ has not responded to the specific consultation questions, leaving these to be addressed by those of its members who have a particular interest in the specific detail of the matters raised in the consultation paper. However, in light of regulatory test that BusinessNZ outlined in the preceding paragraph, it has a number of issues it considers warrants additional attention prior to the Electricity Authority proceeding with the proposal it has laid out in the consultation paper (if that is what is wishes to do after the consultation process has been completed). These issues (in no particular order) are set out below.

But before doing this, BusinessNZ wishes to outline for the Electricity Authority its approach to the issue of transmission pricing. This approach informs the selection of issues which BusinessNZ considers warrants additional consideration by the Electricity Authority.

<u>BusinessNZs Approach to Transmission Pricing</u>

For transmission investments, the key economic characteristics that must, in BusinessNZ's view dictate the eventual outcome reached are:

- in adopting a competitive wholesale electricity market, New Zealand has abandoned the full co-optimisation of transmission and generation locations;

- instead, relying as much as possible on market-driven transmission investment will—with nodal pricing—promote the best locational choices for new load and new generation;

- market-driven investment in transmission may be possible for some connection assets. Everything else will be centrally planned; and

---

[2] BusinessNZ submission to the Electricity Authority entitled 'Transmission Pricing Discussion Paper', dated 14 July, 2011, page 2.

- where transmission investments are centrally planned, Transpower's transmission pricing is about cost recovery, not about providing locational signals. By the time the investment is approved, it's too late for signals.

Therefore, the goals (or objectives) that the Electricity Authority should be striving to achieve are, in BusinessNZ's view:

1. to optimise the locational choices made by new generation or new load where these choices involve new connection assets. Achieve this by:

    a. relying wherever possible on private contracting with directly affected parties for the provision of, and payment for, new connection assets; and

    b. where not possible, allocate the costs of connection assets as fixed charges amongst the connected parties.[3]

2. the goal for all other costs—for interconnection assets and the HVDC—is to allocate the sunk costs in such a way as to:

    a. recover the cost of the asset in a non-distortionary way, say based on capacities, not generation; and

    b. efficiently trade-off the fairness of cost-sharing rules and any perverse incentives the rules may create.

<u>Issues that Warrant Additional Consideration</u>

Based on this framework, the points that BusinessNZ considers warrant greater, more careful consideration by the Electricity Authority are:

1. *the robustness of the cost-benefit analysis*: for a set of proposals that are so significant, it is critical that the Electricity Authority is assured that its calculation of net benefits, in net present value terms, is robust. There are two particular aspects to this that BusinessNZ considers warrants further consideration. These are:

    a. *the extent to which the cost-benefit analysis is substantially assumption driven*: this concern is most clearly captured by the recently released report from the Competition Economists Group, where it stated, in section 2.3 of its report:

        "53. The Issues and Proposals Paper includes a variety of calculations that purport to demonstrate the relative costs and benefits of the various pricing options that have been

---

[3] The prospect of allocation should enhance the prospects of negotiated payments.

considered. However, the $173.2 million in net benefits said to be associated with the proposal is simply a product of the assumptions employed in its modelling. To arrive at the estimate, total sector revenue[28] (based on assumed growth rates) is multiplied by an 'efficiency parameter' (determined based on various qualitative information[29]) and a discount rate (of 6.01% real).

54. The efficiency factor that has been applied is 0.3% of total revenue. This is equivalent to a $0.12/MWh (or 0.05%) reduction in the average unit price per MWh (over total volumes).[30] This efficiency factor is not estimated; it is *assumed*. Taking a lower (higher) parameter will reduce (increase) the estimated economic benefits. Similarly, applying a *negative* parameter will result in a net economic *cost*. The magnitude of this parameter is ostensibly justified through a series of qualitative assessments. However, none of these analyses can provide any real insight into the appropriateness of the assumption."[4]

BusinessNZ expects, in contrast, that any meaningful cost benefit analysis would be based on estimates of expected market outcomes that would arise from the changed methodology rather than an estimate that is entirely divorced from the proposal. The cost benefit analysis is too abstract to be meaningful.

In BusinessNZ's view, this justifies either:

i. the need for greater certainty about the veracity of the assumptions used to generate the net benefit (or, in other words, a high, not low burden of proof before making a change);

   or, if the Electricity Authority is unable to provide this:

ii. a preference for small, rather than large-scale change (or in other words, changes that preserve the option value of waiting). Regulators face the unavoidable fact that they operate in a world of uncertainty. Moreover, an incorrect decision may potentially impose very large costs on firms and the economy. Such costs occur through distorted resource use and reduced investment and innovation (that is, they impair allocative and dynamic efficiency). Reduced investment results in a compounding loss of value that may become quite substantial over a long period.

---

[4] CEG report to Transpower entitled 'Transmission Pricing Methodology – Economic Critique', dated February 2013, page 16.

BusinessNZ's advice is that small, incremental policy changes be used initially so that their effectiveness can be assessed. If responses are inadequate, the original intervention can be intensified or additional measures can be deployed. If instead multiple or large interventions are applied now to the problem, then it will not be possible to assess which intervention to intensify if responses are inadequate because the effects of the different measures will not be separable. In light of this, where interventions cause market changes that are uncertain but irreversible, policy design should set a higher cost benefit threshold. Holding off intervention until there is this higher level of benefit is often referred to as recognising the option value of waiting in making irreversible interventions. This is not inconsistent with principle 4 of the Code amendment principles, where it says:

> *"Principle 4 – Preference for Small-Scale 'Trial and Error' Options:* When considering possible amendments to the Code, the Authority and its advisory groups will give preference to options that are initially small-scale, and flexible, scalable and relatively easily reversible with relatively low value transfers associated with doing so. In these circumstances the Authority will monitor the effects of the implemented option and reject, refine or expand that solution in accordance with the results from the monitoring."[5]

However, despite this, BusinessNZ is somewhat bemused by the claim made by the Electricity Authority that (in the context of its consideration of the alternative capacity rights):

> "….the Authority considers that its proposed option is consistent with Principle 4 of its Code amendment principles……" [6]

We do not see how a proposal of this scale and radical nature could be described as small scale or scalable and consider that a range of smaller-scale options from adopting elements of the Electricity Authority's TPM proposal through to modifications to it to enhance its workability exist.

---

5 Electricity Authority document entitled 'Consultation Charter', dated 19 December 2012, page 5.

6 Electricity Authority consultation paper entitled 'Transmission Pricing Methodology: Issues and Proposal', dated 10 October, 2012, page 127, paragraph 6.3.31.

b. *more careful consideration of the dynamic efficiency impacts of wealth transfers*: BusinessNZ agrees with the Electricity Authority's approach to the consideration of wealth transfers as orthodox, where the Electricity Authority says it:

> " …… adopts the aggregate consumer interpretation of the benefits of competition. In particular, the Authority interprets *competition for the benefit of consumers* to mean the efficiency benefits of competition. This interpretation excludes wealth transfers from the calculation of benefits to consumers, but it includes any efficiency effects that may arise from wealth transfers." [7]

However, it is clear from the proposal that the potential wealth transfers will be substantial (between generators and consumers and businesses), and that these effects could swamp any assumed efficiency benefits. As a result, a greater emphasis on the efficiency effects that will arise from the wealth transfers is warranted.

2. *the presumption of durability*: the Electricity Authority seems confident that its proposal will, if implemented, be more durable than the counterfactual (whatever that might be):

> "... the Authority considers that consumers and participants will accept the proposed approach to the TPM much more than the current approach because it is based on efficiency criteria ..."[8]

and

> "The allocation of costs based on the private benefit derived from the HVDC link should promote investment efficiency through improved investment decision-making and provide benefits from improved durability of the cost allocation methodology."[9]

and

> "(c) promotes durability by promoting a more certain transmission pricing regime. This will reduce on-going lobbying for a change to the TPM which will result in savings in expert legal and technical/economic resources and reduce uncertainty." [10]

7 Electricity Authority foundation document entitled 'Interpretation of the Authority's Statutory Objective', dated 14 February, 2011, paragraph A.24.

8 Electricity Authority, Questions and answers workshop, page 35.

9 Electricity Authority consultation paper, ibid, page 52, paragraph 4.3.7.

10 Op cit, page 77, paragraph 5.3.11.

Simply based on the experience over the preceding decade, and the numerous attempts to bring the issue of the TPM to a resolution, BusinessNZ is sceptical of these claims and any financial benefit ascribed to them.

Durability is a function of the quality of regulatory actions taken or omitted. It does not occur because someone thinks that it will, rather it occurs because of the underlying quality of the regulatory decisions made, combined with the clear signal that the issue is not up for renegotiation

The extent of lobbying will also depend on the Electricity Authority's conduct. It is arguable that durability with regard to the TPM has been absent from the moment that the then Electricity Commission announced that it was to review the TPM in 2007. If the Electricity Authority is seen to acquiesce to lobbying behaviour – as seems apparent from the Electricity Authority conducting a third review of the TPM – it will only serve to encourage further lobbying for change.

By the same token, it is inappropriate to see any issue, particularly transmission regulation, as static – regulation must evolve, particularly as technology and understanding develop. Regulators must be willing to fine tune and adjust their positions over time and it is inappropriate to argue that change per se creates uncertainty and regulatory instability. This is no more pertinent than in a new regulatory environment, where new approaches are being implemented almost 'across-the-board'.

Rather, the Electricity Authority needs to balance certainty and regulatory stability against the ability for the regulatory framework to evolve over time. As a general over-arching principle, BusinessNZ considers that it is important that participants must have confidence in the Electricity Authority's regulatory decision making processes and that arbitrary and inefficient outcomes will not result. This does not, of course, mean the absence of change. However, neither does it imply a presumption for change irrespective of the 'transitional' nature of the current pricing methodology.

In BusinessNZ's view, application of the above principle means that the Electricity Authority must give due weight to ensuring that all:

i. of its decisions are coherent and rational given the particular circumstances under consideration; and

ii. businesses must have confidence that their returns will not be expropriated by regulatory fiat.

Due regard of these tests will minimise uncertainty and regulatory instability and enable participants to plan investments with confidence.

3. *the allocation of sunk costs*: it has been traditional in New Zealand to see the HVDC link and interconnection assets as a sunk cost, with the main focus of the debate on how to recover the cost of that asset in a non-distortionary way.[11] If that's the appropriate way to assess it, then any lump-sum charge which does not change behaviour will suffice. For example, charging via the interconnection charge or existing South Island generators scores well on this objective (especially if the charges were levied against capacities, not load or generation), since this would have no behavioural effects. In other words, the consideration of the set of options canvassed in the Electricity Authority's paper needs to continue to be assessed against the objective of non-distorting cost-recovery. BusinessNZ does not consider that 'efficient' pricing must in all cases be synonymous with a market-driven price or some proxy thereof. Administrative prices can still be efficient. There are three other points in this regard that are worthwhile noting, these being:

    a. *the use of SPD as the best available method for implementing the beneficiaries-pays charge*: neither the current regime nor the Electricity Authority's proposals necessarily provide good signals. More importantly, short-run pricing may not be the best way to provide signals for long-run investment decisions. Both theory and New Zealand's own experience point to some disadvantages of SRMC pricing as applied to transmission. The main problem with SRMC prices is precisely that they are short run, but the decisions we want people to make are often long run. Short run prices stay very low when capacity is available, and then spike suddenly and sharply when capacity becomes scarce. A business making a ten year investment decision therefore needs to make a forecast of SRMC prices ten years into the future if they are to make the right investment decision. A generator deciding whether or not to locate in the South Island might do this, but a householder deciding whether or not to install energy-efficient heating will not. Nor, probably, will a light industrial operation deciding whether to expand in Auckland or Christchurch;

    *b. private benefits, transmission costs and prices*: this is a corollary to the preceding point. When purchasing the bundle of electricity services, consumers will buy electricity up to the point that their private cost equals their private benefits. The issue therefore is not whether the amount paid for the quantity of electricity purchased exceeds the consumers private benefit (it never will), but rather whether the cost of transmission services is greater or less than its price and if so, the extent to which that might distort the amount of electricity purchased (and in turn, the level of private benefit). We are not persuaded that half-hourly

[11] It is generally assumed that nodal prices provide short-run marginal cost efficiency signals.

transmission charge volatility will aid more efficient electricity use or transmission investment decisions. Instead it may simply add a cost to the industry that previously did not exist. The failure to factor in the negative incentives from the continual reallocation of sunk costs risks rendering the basic premise of the proposal questionable; and

c. *the undesirability of retrospective application*: the Electricity Authority proposes to apply a cut-off date after which the beneficiaries-pay charge would apply to existing transmission assets. The Electricity Authority proposes a cut-off date of 28 May 2004, the date on which the Electricity Commission first began approving transmission investments, but with an exception for Pole 2. The retrospective application of the new approach is hard to justify on the grounds of good regulatory practice. All investments switch from being prospective and optional before the fact, to being sunk afterwards. Before an investment has been committed, it is appropriate to signal to consumers and generators how their decisions will affect the investment. Afterwards, it is too late. BusinessNZ considers that on balance, reallocating the cost of both existing and new assets would be inconsistent with either one, or both of the good practice regulatory tests set out in point 2(i) and (ii) on page 7 above.

   When thinking about a cost recovery scheme that is to be imposed on an identified group of beneficiaries for a particular asset, *the ideal is to establish the charging regime at the commissioning time and not change it subsequently*. If this opportunity has been missed, then an allocation after the fact should reasonably not charge more to any sub-group than they could objectively have been expected to have been willing to pay at the outset. The key reason is to minimise any perception of expropriating value from captive market participants since this will undermine future investments.

**Summary**

BusinessNZ welcomes the efforts made by the Electricity Authority in its search for a durable resolution to the issue of the TPM. The Electricity Authority's proposal is novel and interesting. However, BusinessNZ wonders whether its search for an elegant solution has resulted in over-complication.

This is not to say that BusinessNZ disagrees with the proposal. Rather that more work on the components and scope of the proposal is required by the Electricity Authority. This is needed to assure the business community, on whose behalf BusinessNZ speaks, that in the context of such a substantial proposed change there is clear evidence of demonstrable (and material) net benefits associated with them.

In particular, businesses – both large and small – wish to be assured that price movements are efficient and deliver improved market outcomes. Evidence that market-based price signals are able to be responded to in real time will be important to this. Only this will result in long-term, durable policy settings.

At a time when the Government wishes to achieve a set of broader economic objectives, especially around the pursuit of the mixed ownership model which will have direct implications for three of New Zealand's generator/retailers, and indirect implications for the remainder of the market, the sooner this evidence is forthcoming (or not), the better.

Yours sincerely

John A Carnegie
Manager, Energy, Environment and Infrastructure
BusinessNZ

## APPENDIX ONE: ABOUT BUSINESSNZ

Encompassing four regional business organisations (Employers' & Manufacturers' Association (Northern), Business Central, Canterbury Employers' Chamber of Commerce, and the Otago-Southland Employers' Association), BusinessNZ is New Zealand's largest business advocacy body. Together with its 80 strong Major Companies Group, and the 70-member Affiliated Industries Group (AIG), which comprises most of New Zealand's national industry associations, BusinessNZ is able to tap into the views of over 76,000 employers and businesses, ranging from the smallest to the largest and reflecting the make-up of the New Zealand economy.

In addition to advocacy on behalf of enterprise, BusinessNZ contributes to Governmental and tripartite working parties and international bodies including the ILO, the International Organisation of Employers and the Business and Industry Advisory Council to the OECD.

BusinessNZ's key goal is the implementation of policies that would see New Zealand retain a first world national income and regain a place in the top ten of the OECD (a high comparative OECD growth ranking is the most robust indicator of a country's ability to deliver quality health, education, superannuation and other social services). It is widely acknowledged that consistent, sustainable growth well in excess of 4% per capita per year would be required to achieve this goal in the medium term.