Submission on the EA's proposed Decision-making and Economic Framework for Distribution Pricing

From the Electricity Networks Association

22 June 2012

Electricity distribution businesses supporting this submission

The electricity distribution businesses listed below support this submission.

Alpine Energy Ltd
Aurora Energy Ltd
Buller Electricity Ltd
Centralines Ltd
Counties Power Ltd
Eastland Network Ltd
Electra Ltd
Electricity Ashburton Ltd
Electricity Invercargill Ltd
Horizon Energy Distribution Ltd
Mainpower NZ Ltd
Marlborough Lines Ltd
Nelson Electricity Ltd
Network Tasman Ltd
Network Waitaki Ltd
Northpower Ltd
Orion New Zealand Ltd
OtagoNet Joint Venture
Powerco Ltd
Scanpower Ltd
The Lines Company Ltd
The Power Company Ltd
Top Energy Ltd
Unison Networks Ltd
Vector Ltd
Waipa Networks Ltd
WEL Networks Ltd
Wellington Electricity Lines Ltd
Westpower Ltd

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Executive summary

1. The ENA appreciates the opportunity to submit on the Electricity Authority's (EA's) proposed Decision-making and Economic Framework (Framework) for electricity distribution pricing.

2. The ENA supports the aim of the Consultation Paper, to confirm alignment (as far as possible) between distribution pricing methodologies and the EA's statutory objective. We also agree with the EA that the current Pricing Principles align with its statutory objective.

3. The EA does not explain how adding the Framework to the existing Pricing Principles, Information Disclosure Guidelines and pricing methodology reviews would assist in aligning distribution pricing methodologies with the EA's statutory objective. This is particularly unclear given the EA has indicated the existing Pricing Principles are consistent with the Framework and its statutory objective.

4. Further, the EA has not explained why the pricing of both electricity distribution and transmission services should be subject to the same Framework, as these services are very different in terms of the pricing issues involved, the characteristics of the services, their investment patterns, and their customer bases. For example, issues such as whether generators or load should pay, which are critical issues in transmission pricing, are not particularly relevant to distribution.

5. The ENA does not believe the EA has provided a sound basis for introduction of the proposed Framework, given:

   - the problem it aims to address is not identified;
   - it does not have a clear purpose within the wider distribution pricing regulatory regime;
   - it relies on concepts of exacerbator and beneficiary, which are not fit for purpose for the role they are expected to play in the Framework in relation to distribution pricing;
   - it lacks discriminating power when applied to distribution pricing issues;
   - it would introduce uncertainty over time (is time inconsistent) for customers, retailers and EDBs;
   - the Consultation Paper fails to consider the "market-like approach" step in the proposed Framework, and if it had we consider the Pricing Principles would be found to be "market-like", rendering the further steps in Framework redundant; and

- there is no consideration of alternatives to achieve the same objective, and no cost benefit analysis (quantitative or qualitative) of this proposal relative to alternatives (including the status quo).

6. The ENA believes that if EDBs were required to report on their adoption of the Framework in its current form it would introduce a whole new layer of transaction costs and new sources of uncertainty in distribution pricing for EDBs and for many of their customers, for no apparent gain. This outcome would in turn undermine dynamic efficiency and thereby work against the achievement of the EA's statutory objective.

7. If the EA wishes to pursue the proposed Framework, the ENA considers the EA should do so using the its Consultation Charter principles and processes which were designed for developing and assessing such Code amendments. The Charter obliges the EA to identify the problem (or opportunity) the Framework is designed to address, and to undertake a (qualitative or quantitative) assessment of alternative ways to address the identified problem. Neither of these steps is addressed in the Consultation Paper.

8. The ENA considers a more fruitful use of regulatory resources would be to:

- Consider low cost and straightforward ways of confirming that the EA's Pricing Principles are to be interpreted and applied in a way that is consistent with the EA's statutory objective. This could be achieved by stating this as a preamble to the existing Pricing Principles, along the lines of:

  These Pricing Principles are to be interpreted and applied in a manner that is consistent with the Statutory Objective of the Electricity Authority "To promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers."

- Remove, or at least reduce the existing regulatory impediments to EDBs evolving their pricing methodologies to be more consistent with the EA's statutory objective and the Pricing Principles. The three regulatory impediments in the EA's jurisdiction are the low fixed charge regulations, the distributed generation pricing principles in the Code, and the regulatory threat of regulation if rural prices increase at a faster rate than urban prices. The two main regulatory impediments under the Commerce Commission's jurisdiction are the absence of a link between prices and service quality under the default price/quality paths, and the absence of a mechanism to address revenue risk issues when an EDB is restructuring its prices.

9. The EA has indicated it intends to review EDB pricing methodologies, relative to the Pricing Principles, sometime in 2012. It is important that any such review is undertaken on the basis of the regulatory guidance (e.g. Pricing Principles and Information Disclosure Guidelines) prevailing at the time that the pricing methodologies under review were developed. It would be unreasonable and unhelpful to undertake a review based on regulatory guidance that had been changed subsequent to EDBs preparing their pricing methodologies.

10. It is also important that the EA provides sufficient time between introducing any changes in regulatory guidance as a result of this consultation and any pricing methodology review based on that revised guidance. The necessary period will depend on the nature of any change.

1. Introduction

12. The ENA appreciates the opportunity to submit on the EA's Consultation Paper[1] and proposed Framework.

13. The ENA's contact person for this submission is:

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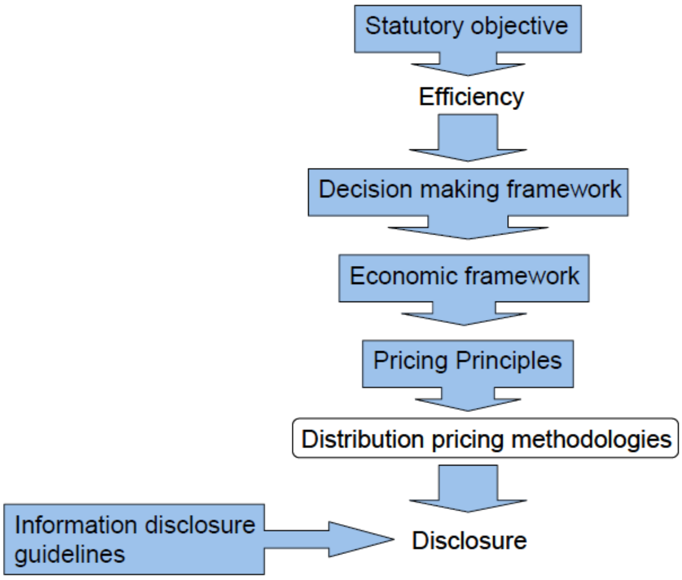
Outline of report

14. The aim of the Consultation Paper appears to be that the EA wants to ensure its statutory objective is reflected in the interpretation and application of the distribution Pricing Principles. This aim is reflected in paragraph 4 and Figure 2 (reproduced below):

> *The Authority has decided to develop an economic framework that is consistent with its statutory objective that it intends to use as the basis for making decisions in relation to distribution pricing.*



15. Thus the test for the proposed Framework should be whether it would improve efficiency in the electricity sector for the long-term benefits of consumers,

[1] *Decision-making and Economic Framework for Distribution Pricing Methodology Review: Consultation Paper,* Electricity Authority, 7 May 2012

relative to (1) the status quo and (2) alternative ways to achieve the same outcome.

16. The Consultation Paper unfortunately does not attempt to subject the proposed Framework to such a test, even though the EA's Consultation Charter obliges it to do so.

17. The EA should not simply assume that the Framework it has designed for transmission is also be desirable and useful for electricity distribution. We discuss relevant differences between transmission and distribution in section 2.

18. The ENA considers requiring electricity distribution businesses (EDBs) to apply the proposed Framework would not achieve the objective set for it in the Consultation Paper, for the reasons set out in section 3. The EA does not explain how adding the Framework to the existing Pricing Principles, Information Disclosure Guidelines and regular pricing methodology reviews would improve alignment with the EA's statutory objective. This is particularly unclear given the EA has concluded the existing Pricing Principles are consistent with the Framework and with the EA's statutory objective.

19. If the EA wishes to pursue the proposed Framework further, we suggest it does so in a manner consistent with its Consultation Charter, which we discuss in section 4.

20. However, the ENA considers there is a much more cost effective and simple way to ensure the Pricing Principles are interpreted and applied in a manner consistent with the EA's statutory objective and we describe this alternative in section 5.

21. Lastly, in section 6 we describe existing regulatory rules (under the EA's and the Commerce Commission's jurisdictions) that impede electricity distribution pricing from evolving in a manner more consistent with the EA's statutory objective and the Pricing Principles. Removing, or at least reducing these impediments is likely to be a much more effective use of regulatory resources than designing and implementing the proposed Framework.

2. Distribution differs from transmission in important ways

No problem equivalent to transmission pricing discord

22. The EA has implemented recently a Framework for transmission pricing that is almost identical to the one it is proposing to apply to distribution pricing.[2] The EA's development of a Framework for electricity transmission pricing reflected that stable and widely supported electricity transmission pricing has been one of

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[2] *Decision-making and economic framework for transmission pricing methodology: Decisions and reasons*, Electricity Commission, 7 May 2012

the most intractable issues in the electricity sector in New Zealand. The development of the Framework was in response to a (yet another) earlier review of transmission pricing methodology not reaching a consensus on some key issues.[3] There is no similar set of problems requiring resolution in distribution pricing. In fact the EA does not identify any problems in distribution pricing in the Consultation Paper.

23. There is general support in the electricity sector for the EA's current approach of relying on Pricing Principles, Information Disclosure and reviews of pricing methodologies. An area where some retailers have expressed concern is over the diversity of approaches to distribution pricing. However, the Framework wouldn't address this issue, and in practice would likely achieve the opposite (for reasons explained in section 3).

Distribution characteristics differ to transmission

24. The transmission system in New Zealand interconnects about 29 EDBs, 5 main generators, and a small number of very large direct connected businesses via around 250 grid injection and exit points. Transmission customers are generally well informed in relation to transmission issues, and a well performing transmission system is critical to their businesses, resulting in these customers having the capability and the motivation to engage in detail (and over time) on transmission decision making issues. Lastly, most transmission investment comes in large chunks, which warrant attention from the affected customers.

25. Distribution differs on each of these characteristics. EDBs across New Zealand have approximately two million ICPs (i.e they are atomistic in comparison to transmission). While for most customers a reliable supply of electricity is very important, they neither have the industry knowledge nor the motivation to engage in discussions on electricity distribution issues. They quite reasonably expect the service to be provided without their engagement and to be priced in a reasonable manner. For most, electricity supply considerations do not determine their choice of location.

26. Investment in distribution is generally a long list of small projects. Due to the meshed nature of most distribution networks, the drivers and beneficiaries of any single investment are diffuse.

27. Thus a Framework designed for transmission pricing is unlikely to be useful for distribution pricing. If imposed, it would drive a whole new layer of transaction costs in an EDB's business and for its customers, for no apparent gain.

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[3] *Transmission Pricing Analysis: Report to the Electricity Authority*, Transmission Pricing Advisory Group, 31 August 2011

EA statutory objective is common and unifying

28. The ENA considers the EA's statutory objective provides a common and unifying objective for both transmission and distribution pricing. The key issue is this objective needs to be achieved by mechanisms that are fit for purpose relative to the characteristics of the service being provided, the investment decisions that need to be made, and the customer base involved. Given that these characteristics differ so markedly between transmission and distribution, it is reasonable to expect the most efficient approach to provide regulatory oversight of their pricing will also differ.

29. We recommend in section 5 an approach which we consider is fit for purpose for distribution pricing, and which builds on the EA's existing mechanisms.

3. Framework unlikely to improve efficiency in the sector

Problem not identified

30. The proposed Framework appears to be a solution looking for a problem. The Consultation Paper does not make clear the particular ways that the existing regulatory mechanisms (summarised in paragraphs 2.1.3 and 2.1.4 and section 3.2) might be inefficient or promote distribution pricing that is not consistent with the EA's statutory objective. We consider the major reason for inefficiencies in EDB pricing are regulatory impediments, which are discussed in section 6.

31. The closest the Consultation Paper gets to identifying a problem related to efficiency outcomes is the implied view that, theoretically, the current mechanisms may not lead parties to take into account the non-private costs of their decisions (sections 5.5). However, no evidence is presented as to whether such effects arise in practice, or to their magnitude, and if (and how) the proposed Framework would resolve such issues.

Purpose unclear

32. Figures 2 and 8 in the Consultation Paper contain a graphical representation of where the Framework would sit in a hierarchy relating to distribution pricing. The ENA considers the Framework has been shoehorned into place in this hierarchy, as there does not appear to have been a gap in the hierarchy where the proposed Framework would sit. The Framework would add another step in the process without adding clarity or insight to the existing Pricing Principles.

33. The link between the Framework and the Pricing Principles remains largely unexplained. Therefore it is difficult to determine what the additional contribution is from the Framework (i.e. what it is trying to achieve). Certainly there is no identification in the Consultation Paper as to how and why the proposed Framework is the best way to translate the EA's statutory objective to the Pricing

Principles. We develop an alternative that is a much more straightforward way of doing so in section 5.

Concepts opaque and not fit for purpose

34. The EA proposed in the transmission context the adoption of "exacerbator pays" and "beneficiary pays" concepts to determine how transmission costs should be allocated between generation and load. Reflecting this, the EA cites an example in the Consultation Paper (in support of exacerbator pays) of a load or a generator considering whether to locate in an area not connected to the network. This is fundamentally a transmission-centric example. Issues such as whether generators or load should pay, which are critical issues in transmission, are not particularly relevant to distribution. This disjuncture illustrates the ENA's concern about the EA simply applying the transmission Framework to distribution without due consideration of the important differences in these services (as described in section 2).

35. The discussion of exacerbators and/or beneficiaries and determining the price they should pay lacks clarity. Identification of exacerbators is rightfully acknowledged as difficult by the EA. One aspect of this identification task that the Consultation Paper does not touch on in any depth is that exacerbators may be beneficiaries as well, or that customers may migrate over time between these categories. The ENA is unconvinced of the implied assumption in the Consultation Paper that there is a clear demarcation between exacerbators and beneficiaries in the distribution context.

36. Concepts that are opaque to those affected by them (e.g. EDB customers) and to those required to apply them (EDBs) will result in unnecessary transaction costs. They can also be expected to result in inefficient behaviour as parties take actions to avoid being labelled in ways contrary to their economic interests. This activity is similar to that which is observed in relation to parties trying to minimise their income tax exposure and is a deadweight loss to the economy (i.e. serves no wider economic purpose).

37. In its submission on the development of the Framework for pricing of transmission services, Transpower cautioned the EA to "…*give particular consideration to the durability and acceptability of any method adopted and the potential for charges to be disputed, with the consequent potential for significant transaction costs*." Transpower went on to note that "…'*excaerbator pays, 'causer pays' or 'but for' allocation methods require the development of very detailed allocation rules which need to be interpreted for each specific instance of their application.*"[4]

38. An example was cited by Transpower relating to very substantial litigation costs around the application of the "but for" methodology used by PJM:

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[4] *Submission on consultation document Decision-making and economic framework for transmission pricing methodology review,* Transpower 2012, p.10.

"PJM has spent years and tens of millions of dollars litigating the method used to calculate benefits for reliability and system network upgrades. There can be little doubt that many conflicts will arise using this type of approach since different methodologies to determine benefits can cause wide swings in the allocation of costs."[5]

39. These issues of significant transaction costs, and parties' inefficient avoidance behaviour, can be expected to be magnified for distribution services relative to the transmission context (for reasons set out in section 2).

Treasury Guidelines do not support the EA's use of concepts

40. The lack of clarity in the concepts used in the Framework extends to the authority used by the EA to develop the proposed Framework. The Consultation Paper relies heavily on The Treasury's *Guidelines for Setting Charges in the Public Sector* (the Guidelines) in forming its view.[6] However the material referenced in the Guidelines was not designed to provide the basis for charging structures as used by the EA.

41. The Guidelines were developed for the public sector in particular, and explicitly state (at p.3) that they "*…do not deal with…services provided in competitive or contestable markets (which is the case for nearly all state-owned enterprises)*."[7] The motivation for the Guidelines was for the public sector to move away from reliance on tax funding for some goods and services provided by the public sector (i.e. ways in which parties other than government can be identified who would be suitable to charge).

42. Two relevant points are worth making. The diagram from the Guidelines reproduced at page 23 of the Consultation Paper is used in the Guidelines to identify options as to who may be charged for a service that hitherto had been funded by general taxation. This is not a step relevant to distribution pricing, as there are already well established commercial conventions as to who the EDBs charge for the distribution service.

43. Second, the Guidelines specifically caution against using the exacerbator and beneficiary concepts in the manner used in the Consultation Paper, in that (at 9.12) they state:

"*It should be noted that neither 'beneficiary pays' nor 'risk exacerbator pays' are necessarily efficient as charging rules. They are simply used here to identify charging options*"

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[5] *The "but for" Method of Identifying User Specific Assets for Transmission Pricing Purposes*, Castalia Strategic Advisors 17 April 2007 p.12, cited in Transpower (2012).

[6] Paragraph 5.4.1 of the Framework Paper.

44. Thus the Consultation Paper uses concepts in the proposed Framework to underpin an (intended) efficient pricing regime that The Treasury has cautioned against using as an efficient charging rule in the public sector. The ENA considers the proposed Framework elevates these concepts (i.e. exacerbator and beneficiary) to a role in pricing for which they were not designed (at least not in the electricity distribution context).

Framework lacks discriminatory power for efficient pricing

45. The Consultation Paper does not demonstrate how the Framework would discriminate between competing pricing methodologies and result in the most efficient one being chosen. The Framework does not engage with distribution pricing issues that are likely to be important to arrive at such conclusions.

46. As mentioned above, the Guidelines relied upon by the EA identify potential pools of payers (i.e. exacerbators or beneficiaries). The Guidelines do not use these concepts to define an efficient pricing methodology or structure.

47. A useful example of the complexity involved in finding efficient pricing methods is that of multi-sided markets (often referred to as platforms), where there is interdependency between buyers and sellers (i.e. there are benefits to both sides from the presence of the other). In such markets often it is "the beneficiary" who pays even though "the exacerbator" could be charged. For example, in the case of a Google search, it is the seller/advertiser who pays (a beneficiary), not the exacerbator (the person undertaking the search).

48. The key lesson is that in a market context a range of factors and issues determine who pays, and the pricing structure, and the (revealed) economically efficient approach to pricing often deviates from standard economic prescriptions. A zero charge for exacerbators is not uncommon. Such pricing structures come about through the discrimination of differing factors and features peculiar to the parties and markets involved, inclusive of their relative transaction costs and willingness to pay.

49. The ENA considers the proposed Framework does not discriminate clearly with respect to features or characteristics likely to be important to the development of economically efficient distribution pricing. On the other hand the Pricing Principles do.

Time inconsistency

50. Both "exacerbator pays" and "beneficiary pays" approaches as set out in the Consultation Paper require a "point in time" assessment. However, in practice a particular electricity consumer, or electricity market participant, may fit the definition of either exacerbator or beneficiary in one time period, and the reverse in the next time period. There is no indication in the Consultation Paper of the extent to which actions (or inactions) in the past, the present, or the future matter most in the determination of whether a certain party is to be classed an exacerbator or a beneficiary.

51. This temporal issue was considered recently in a case concerning local road infrastructure investment and who should pay. In the *Neil Construction* case,[8] the Courts had to decide whether an "exacerbator pays" approach used by a local council was consistent with the requirements of the relevant piece of legislation (in this case the Local Government Act). The issue was the allocation (by a local council) of well over 90% of the costs of a roading project (the North Shore bus way) to the "exacerbator" who was a property developer.

52. Counsel for the plaintiffs argued that existing users of the roading network were beneficiaries of the proposed busway project (requiring extension of the existing roads) and also contributed to the need for the expansion (i.e. they were both beneficiaries and exacerbators). While the case was decided on points of law relating to the particular Act, two issues are pertinent.

53. The first is the importance of timing for the allocation of costs. The degree to which the existing roading network was used over time determined (in part) the need for expansion, in order to maintain similar levels of service over time. It was shown in the case that a reasonably minor change in the date at which levels of service for existing users were considered to deteriorate had a substantial impact on the resulting allocation of costs. In essence, the question was whether the point in time used to allocate costs was arbitrarily derived for reasons of expediency, rather than objectively.

54. The second point is that determining beneficiaries and exacerbators was found to be not straightforward for any of the parties (it is relatively simple over time for exacerbators to become beneficiaries and beneficiaries exacerbators). In the context of the Local Government Act (2002) the Court found both "beneficiary pays" and "exacerbator pays" approaches needed to be considered and applied.[9]

55. A further temporal consideration in relation to the proposed Framework is that of the time consistency of decision-making by whoever is applying the Framework. Expert advice provided to Meridian for its submission on the development of the Framework for pricing of transmission services raised this issue. In particular, the expert view was that the prospect of *ex post* identification of exacerbators (which the Consultation Paper notes may be efficiency enhancing at 5.5.8) with *ex ante* vagueness around who might be an exacerbator creates a substantial risk to efficient investment.[10]

56. Finally, temporal considerations are important in terms of perceived fairness, and such perceptions have implications for pricing stability. The EA rightly highlights

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[8] Neil Construction Ltd and Ors vs North Shore City Council. High Court of New Zealand CIV 2005-404-4690.

[9] The judgement also concluded that the pursuit by Council of economic efficiency through a clear causation/exacerbator pays approach was not consistent with the legislation.

[10] *Submission on Decision Making and Economic Framework for Transmission Pricing Methodology Review Consultation Paper*, Meridian Energy, 2012, Appendix four.

efficiency as the key part of its statutory objective. Equity and fairness play no explicit role in the EA's proposed Framework.[11] However, two reasons suggest that equity/fairness are not redundant when considering pricing methodologies.

57. The first is highlighted in the Treasury Guidelines that the EA references, which explicitly mention the need to consider equity/fairness in the treatment of beneficiaries, exacerbators and others. Objective 5 (on p.3 and p.14) notes the need to deal equitably with the taxpayer, those who benefit from the service and/or those whose actions give rise to it. The Guidelines go on to say (at p.14): "*…changes to existing policy may be inequitable for those who have made commitments on the basis of earlier policies*" and identifies a need to consider implications for the speed of adjustment to a new charging regime.

58. The second reason is that ignoring equity considerations could lead to pricing instability over time. Actual or perceived unfairness would not only destabilise policy over time but also increase the incentives to undertake behaviours the EA is explicitly trying to reduce. In this case the behaviour concerns lobbying, which is mentioned in paragraphs 5.2.5, 5.5.26, 5.4.16, 5.6.3, 5.6.11 and 5.7.3. Meridian commented on this aspect in its transmission submission as follows:[12]

> "*While fairness is no longer an explicit element of the statutory objective, it would be wrong to think that whether or not the TPM fairly allocates costs will be irrelevant to the durability or efficiency of the TPM. A regime with elements of unfairness will be unstable, as incentives to lobby for change to the regime will be high. The strong incentive to lobby for a change to the TPM is an issue that the Authority already acknowledges…*"
>
> *"Furthermore, an unstable regime will lead to inefficiency in the long-term. An optimal investment environment will be one which is stable and predictable, and gives accurate signals on the costs and benefits of investment which are not distorted by regulatory rules. A regime that is perceived as unfair will also distort market entry and exit incentives. It was these considerations that led Professor George Yarrow, Chairman of the Regulatory Policy Institute, Oxford, to remark that:*
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> > "*…for a regulatory regime to work it has to have credibility and it has to be legitimate and it has to be legitimate for all parties involved… a regime which loses legitimacy or is lacking or lacks credibility is going to operate inefficiently in the long run. In other words there's quite a close relationship in regulation between notions of*

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[11] Equity considerations are implicit, *inter alia,* in the discussion of wealth transfers in paragraphs 4.1.4 and 4.1.5 of the Framework Paper.

[12] Op cit. paragraphs 49-51.

fairness and reasonableness and also notions of efficiency."[13]

59. Meridian goes on to claim (at paragraph 52) that "*One area where these considerations will be particularly relevant is the assessment of pricing frameworks under which arbitrary or fine distinctions are made between industry participants.*"Although related more to equity, this comment resembles the Transpower concerns above of an ill-specified framework leading to very high transactions costs. Where parties perceive unfairness (as a result of arbitrary distinctions) they are likely to take action to attempt to redress that outcome.

The EA has not properly applied its own Framework

60. The EA has not properly applied its proposed Framework relative to the existing Pricing Priciples.

61. The Framework requires the EA to go through the approaches in the Framework, which start with the most preferred approach, identify the extent to which it is applicable, and then move onto the next preferred approach.

62. However, the Consultation Paper concludes that a market-approach would have only limited practical application in the context of electricity distribution, but then omits consideration of a market-like approach (the next preferred approach) and goes straight to the following approach, which is "exacerbator pays" (this jump occurs from section 5.3 to 5.4).

63. The ENA considers that if the EA had assessed the Pricing Principles against the market-like approach it would have concluded that the Pricing Principles are consistent with a "market-like approach". We come to this view as the Pricing Principles require no cross-subsidies, signalling of future investment cost, linking prices to service quality, limiting prices where competitive bypass or substitution is possible, and Ramsey Pricing. These are all features of pricing that can be expected in a workably competitive market.

64. This suggests that the Consultation Paper and proposed Framework is best viewed as an assessment of the Pricing Principles relative to the EA's statutory objective, but does not have a useful role beyond that.

Summation – proposed Framework would result in detriments, not benefits

65. The ENA believes that if EDBs were required to report on their adoption of the Framework in its current form it would introduce a whole new layer of transaction costs and new sources of uncertainty in distribution pricing for EDBs

[13] *Input Methodologies Conference Transcript, Electricity Distribution Services*, 17 September 2009, pages 351-352.

and for many of their customers, for no apparent gain. This outcome would in turn undermine dynamic efficiency and thereby work against the achievement of the EA's statutory objective. We reach this conclusion given that:

- the problem the proposed Framework aims to address is not identified;
- the proposed Framework does not have a clear purpose within the wider distribution pricing regulatory regime;
- the proposed Framework relies on concepts of exacerbator and beneficiary, which are not fit for purpose for the role they are expected to play in relation to distribution pricing;
- the proposed Framework lacks discriminating power when applied to distribution pricing issues;
- the proposed Framework would introduce uncertainty over time (is time inconsistent) for customers, retailers and EDBs; and
- the Consultation Paper fails to consider the "market-like approach" step in the proposed Framework, and if it had we consider the Pricing Principles would be found to be "market-like", rendering the further steps in the Framework redundant.

4. Consultation Charter should be followed

66. We set out above a number of reasons in sections 2 and 3 why the proposed Framework should not be adopted for electricity distribution.

67. The EA issued a Consultation Charter (Charter)[14] which includes a number of Principles the EA is committed to follow when consulting on amendments to the Code (which the proposed Framework would involve). The Charter includes the following Principles:

- Principle 1 – Lawfulness
- Principle 2 – Cleary identified efficiency gain or market or regulatory failure
- Principle 3 – Quantitative assessment

68. The Consultation Paper does not assess the proposed Framework against any of these Principles. It does not identify the problem (or opportunity) that the proposed Framework aims to address, or consider alternatives (including the status quo) to addressing the identified problem. In the absence of a clear

[14] *Consultation Charter*, Electricity Commission, 20 December 2012

definition of the problem, and of alternatives, the Consultation Paper also fails to provide a comparative (qualitative or quantitative) assessment of alternatives.

69. The one assessment provided in the Consultation Paper is of the existing Pricing Principles (section 7.2). The EA finds that "*The Authority considers that the pricing principles have an economic efficiency focus and are therefore consistent with the decision-making framework.*" (paragraph 7.2.2), and goes on to confirm that the Pricing Principles:

- emphasise the importance of exacerbators pay (paragraph 7.2.5);
- emphasise that prices should be responsive to the requirements and circumstances of stakeholders (paragraph 7.2.6);
- market based approaches could be constructed to satisfy the Principles (paragraph 7.2.7);
- Principles (d) and (e) relate more to the need to satisfy broader efficiency requirements than emphasising particular pricing approaches (paragraph 7.2.8);
- Principles (a), (c), (d) and (e) are unambiguously consistent with economic efficiency (paragraph 7.2.9); and
- the EA agrees with the emphasis on incremental cost-based approaches in Principle (b).

70. The remarkable outcome of this assessment is that the EA does not identify any need to change the Pricing Principles in light of the proposed Framework, but nevertheless considers the Framework would be an improvement (but does not explain why it would be an improvement).

71. Furthermore, if the Consultation Paper had considered the "market-like approach" in its Framework, we consider it would have found the Pricing Principles to be "market-like", rendering the further steps in the Framework redundant.

72. The ENA supports the EA's Charter, as it provides an appropriate discipline on the regulatory policy making process. The ENA requests that, if the EA wishes to proceed with the proposed Framework, that it re-issues its Consultation Paper and ensures it:

- assesses the proposed Framework relative to the EA's Charter Principles;
- takes into account the issues we have raised in section 2 and 3 in relation to the proposed Framework; and
- includes a comparative assessment of the proposed Framework relative to the status quo, and to the approach outlined in section 5.

5. Alternative method to confirm greater alignment with statutory objective

73. The Consultation Paper describes the existing regulatory oversight regime as comprising (section 3.2):

- the Pricing Principles;
- the Information Disclosure Guidelines; and
- regular pricing methodology reviews undertaken by the EA.

74. The EA concludes that none of these components need to be changed in order to be consistent with the EA's statutory objective. The ENA agrees.

75. The Consultation Paper spends a whole section (section 4) discussing the EA's statutory objective and its application to distribution pricing. This discussion culminates in Table 3, which sets out the application of the statutory objective to distribution pricing. We have appended Table 3, and have matched against each example in that table the relevant Pricing Principle. We find that each example raised in Table 3 is addressed by one or more of the existing Pricing Principles.

76. Thus the EA has not identified any Pricing Principles that require change, and the Pricing Principles address all the distribution pricing examples the EA's statutory objective gives rise to. Given this outcome, we find it hard to imagine what the purpose of the Framework is intended to be, or what issues it is intended to solve.

77. We consider the explicit inclusion of the EA's statutory objective in the Pricing Principles would achieve the aim of the Consultation Paper, to confirm alignment (as far as possible) between distribution pricing methodologies and this statutory objective. This approach would recognise that in some situations the Pricing Principles accommodate more than one approach, or trade-offs arise between the Principles. In such situations the inclusion of the statutory objective would confirm that the EDB would need to make any such choices consistent with the statutory objective, or explain why not. This approach would ensure ongoing alignment between the statutory objective and the interpretation and application of the Pricing Principles.

78. An example of the way in which the statutory objective could be included along these lines would be to insert the following pre-amble into the beginning of the Pricing Principles.

> *These Pricing Principles are to be interpreted and applied in a manner that is consistent with the Statutory Objective of the Electricity Authority "To promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers."*

Incentives on EDBs under a DPP support this approach

79. The default price-quality path (DPP) applying to EDBs and implemented by Commerce Commission is a price (and quality) path, not a revenue path (the Consultation Paper misses this point in its description of the DPP at paragraph 3.1.2). The DPP specifies the weighted average price trends (relative to the CPI) for each EDB.[15]

80. Thus at the commencement of a regulatory period an EDB faces a revenue path which is a function of the volumes attaching to each of its prices. If its prices are not a good reflection of how its costs scale over time (that is if they don't approximate long run incremental cost), then its revenues and costs will diverge, and in ways over which the EDB has little influence. Thus there are commercial incentives on EDBs to align their tariff structures with their long term cost structures. Such tariff structures are consistent with the Pricing Principles and with the EA's statutory objective.

81. In practice many existing EDB tariff structures do not reflect their cost structures well. For example, many EDB tariff structures have a substantial weighting to kWh units, whereas network costs tend to scale relative to peak capacity requirements and customer density measures. There are a set of regulatory impediments to EDBs moving to tariff structures that are more cost reflective. These include the low fixed charge regulations and the revenue risks attaching to changing tariff structures. These issues are discussed in more detail in the next section. Another set of impediments has to do with the availability of information on usage patterns in order to apply, for example, tariffs based on capacity usage at peak times. The wider deployment of smart metering should address this later set of impediments.

82. The presence of incentives on EDBs that are aligned with implementing the Pricing Principles in a manner consistent with the EA's statutory objective is another reason why the ENA considers its above proposal would in practice be effective, and why the proposed Framework is unnecessary.

Implications for intended pricing methodology review

83. The EA has indicated it intends to review EDB pricing methodologies, relative to the Pricing Principles, sometime in 2012. It is important that any such review is undertaken on the basis of the regulatory guidance (e.g. Pricing Principles and Information Disclosure Guidelines) prevailing at the time that the pricing methodologies under review were developed. It would be unreasonable and unhelpful to undertake a review based on regulatory guidance that had been changed subsequent to EDBs preparing their pricing methodologies.

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[15] *Electricity distribution services default price-quality path determination 2010,* Commerce Commission, 22 March 2012 (consolidating amendment 3), clause 8

84. It is also important that the EA provides sufficient time between introducing any changes in regulatory guidance as a result of this consultation and any pricing methodology review based on that revised guidance. The necessary period will depend on the nature of any change.

6. Existing regulatory impediments to more efficient pricing

85. In this section we set out the existing regulatory impediments EDBs face to evolve their pricing structures to better meet the Pricing Principles and the EA's statutory objective. The ENA considers greater progress would be achieved by the EA (and the Commerce Commission) focusing on removing these impediments, rather than on progressing the proposed Framework. We discuss three regulatory impediments under the EA's jurisdiction first, followed by two under the Commerce Commission's.

Lowed fixed charge regulations

86. Regulations for low fixed charges were introduced in 2004 and require EDBs to offer a residential tariff that:

- has a daily fixed charge no greater than 15c GST excl; and
- the sum of fixed and variable charges are no greater than an average consumer would pay on any other residential tariff from the same supplier (with an average consumer defined as 8,000 kWh per annum except in the lower South Island where it is defined as 9,000 kWh)

87. EDBs are free to offer other tariff structures (and they do), but this low fixed charge must also be offered, and retailers face similar requirements.

88. This requirement for a low fixed charge constrains the ability of EDBs to move to a greater weighting on fixed charges (which would be more cost reflective) in the residential market and at the same time retain their current revenues. This constraint arises as the further the fixed fee on the standard tariff moves away from the 15c per day low fixed charge, the greater the arbitrage opportunity for customers to self select into the charge that favours their circumstances, eroding the EDB's overall revenues.

89. The existing lowed fixed charge regulations are inconsistent with the EA's statutory objective and the Pricing Principles. The ENA recommends that the EA review these regulations with a view to recommending to the relevant Ministers that these regulations be revoked, or at the least that they be substantially overhauled in order to be consistent with the EA's statutory objective.

Pricing of connections for distributed generation

90. EDBs are subject to two sets of Pricing Principles imposed by the EA. The Consultation Paper omits to mention clause 6.9, Pricing Principles, in Part 6, Connection of distributed generation, of the Electricity Industry Participation Code 2010 (the Code).

91. This pricing principle in the Code requires:[16]

> *… connection charges in respect of* ***distributed generation*** *must not exceed the incremental costs of providing connection services to the* ***distributed generation.***

92. This requires an EDB to recover its fixed and common costs from other customers. This outcome is inconsistent with the Consultation Paper's Table 3 comments, in relation to competition, which state that:

> *If a distribution charge falls to a greater extent on some retailers, some customers or embedded generators but not others, this may distort retail and generation competition, and competition among affected consumers.*
>
> *Distribution pricing has the potential to favour particular technologies or connection arrangements through the incidence and structure of charges.*

93. It is also inconsistent with the Pricing Principle (b) (essentially a Ramsey pricing principle), unless it could be demonstrated that DG is (and will remain in the future) more price responsive with respect to electricity distribution services then all other EDB customers. We consider this implausible.

94. This level of (incremental) pricing would be unsustainable for an EDB if its network were dominated by DG, as its revenue would be insufficient to cover its fixed costs (i.e. those costs not incremental to a connection).

95. Smart grid technologies are expected to enable greater adoption of DG, and the supply of DG is expected to rise very significantly over the next 5 to 10 years. As DG penetration rises so will the need to revisit this pricing principle. This pricing principle is already troublesome in some settings, for example where the DG is large relative to wider network demand. There are also interrelated issues between the DG regulations and the low fixed charge requirement (discussed above), as DG has the potential to lower the off-take of some connections and thus exacerbate an EDB's revenue risk arising from the low fixed charge requirement.

96. The DG regulations in their current form are inconsistent with the EA's statutory objective and the Pricing Principles. They should be amended to enable DG charges to include a reasonable allocation of the fixed and common costs to supply the electricity distribution service.

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[16] Clause 2(a), Schedule 6.4, Electricity Industry Participation Code 2010.

Ongoing threat of regulation in relation to urban and rural prices

97. The EA is empowered to initiate regulations[17] in relation to restricting the rate of change in rural prices relative to non-rural prices on the same network. This issue was previously part of the Government Policy Statement.

98. The cost of providing a distribution service in rural areas is often higher than in urban areas due to the lower consumer density patterns. The EA's statutory objective, the Consultation Paper (see Table 3) and the Pricing Principles argue for EDB pricing methodologies that reflect these cost differences. However, the EA has not provided guidance as to how it would assess a situation where an EDB changes its prices to reflect these cost differences, and in so doing the rate of change in prices is higher in rural than urban areas.

99. The EA could provide useful certainty on this topic by confirming that it would not take regulatory action where any differences in the rate of change in urban and rural prices differs are a reflection in differences in the costs to supply the service.

Revenue risk when re-structuring prices

100. Under the DPP (administered by the Commerce Commission) it is possible for an EDB to change (or re-structure) its prices within a regulatory period.[18] However, the re-structuring mechanism requires the EDB to forecast any change in customer behaviour from the re-structured prices in advance, and there is no mechanism for adjusting pries after the event should those forecasts prove inaccurate.

101. Thus the re-structuring of EDB prices comes with revenue risk for an EDB and thereby raises the barrier to change prices. The ENA has raised this issue with the Commission a number of times but so far no resolution has been forthcoming.

Incentives needed to improve service quality

102. The quality of the electricity distribution service defines in large part the quality of service experienced by electricity consumers (i.e. whether or not the electricity is on and the length of any outages, and its quality in terms of voltage, flicker, etc). Consumers generally prefer higher rather than lower levels of service, and particularly so if improvements can be made at modest cost. The EDB is the best informed party as to where, and to what extent such improvements are possible, and the cost of doing so, as the potential to make improvements tends to be

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[17] As per the Electricity Industry Act 2010, subclause 113 (1) (c) & (2) (e).

[18] *Electricity distribution services default price-quality path determination 2010,* Commerce Commission, 22 March 2012 (consolidating amendment 3), clause 8.6 & 8.7

location and network specific. This context suggests the best way to evolve the electricity distribution service to a higher level of quality is to provide the distributor with incentives to do so.

103. Smarter networks will improve the tools available to EDBs to improve service quality, including the monitoring in real time of the quality of supply at consumer premises (via information from smart meters), obtaining immediate signals of any outages and their location, and having greater capability to switch load to alternative sectors of the network to manage peak demands.

104. Pricing Principle (c)(ii) envisions a linkage between service quality and price.

105. DPP regulation (in its current form) provides no financial incentives whatsoever to improve the quality of the electricity distribution service. Rather, as the performance in one regulatory period forms the basis for the required level of service in the next, an EDB has incentives to ensure it does not raise its (measured) levels of service, as doing so simply ratchets up requirements in the next regulatory period, for no reward. The financial implications of ratcheting up targets are exacerbated where the network is aging, as it becomes progressively more expensive to meet even existing targets.

106. Thus the incentives on EDBs as regards improving service quality are at odds with the long-term benefit to consumers. Other regulators address this issue by way of service quality factors that reward the EDB for improving service quality.[19] This aspect needs urgent attention in the New Zealand DPP arrangements and we have raised it with the Commission on numerous occasions.

107. Accordingly, the application of Principle (c)(ii) will remain somewhat limited unless the Commerce Commission amends its approach to the DPP under Part 4 of the Commerce Act to link price and service quality. This is a matter the ENA urges the EA to discuss with the Commerce Commission.

Summary

108. The above five regulatory issues impede EDBs from pricing their distribution service in a manner consistent with the EA's statutory objective and the Pricing Principles. The first two issues under the EA's jurisdiction (low fixed charge and DG regulations) were put in place under the Electricity Commission's previous statutory objective but are inconsistent with the EA's statutory objective and the Pricing Principles. We recommend they be reviewed with a view to aligning them with the EA's statutory objective.

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[19] The approach taken by the UK regulator Ofgem is described at http://www.ofgem.gov.uk/Networks/ElecDist/QualofServ/QoSIncent/Pages/QoSIncent.aspx . The Australian regulator's approach, AER, is described in "*Electricity Distribution Network Service Providers: Service Target Performance Incentive Scheme*", November 2009, available at http://www.aer.gov.au/content/index.phtml/itemId/731935

109. The third issue (differences in rates of change in rural and urban prices) is a carry-over from the Electricity Commission in the form of a poorly specified regulatory threat. The EA could provide useful certainty on this topic by confirming that it would not take regulatory action where any differences in the rate of change in urban and rural prices are a reflection of differences in the costs to supply the service.

110. The last two issues (revenue risk when re-structuring prices and incentives to improve service quality) are under the jurisdiction of the Commerce Commission. We recommend the EA raises these issues with the Commerce Commission, within the context of its MOU[20] between the two regulators as areas of common interest.

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[20] *Memorandum of Understanding between the Electricity Authority and the Commerce Commission*, 10 December 2010

Appendix 1: Comparison of Table 3 issues and Pricing Principles

	Application to distribution pricing	Examples of how distribution pricing can influence	Relevant Pricing Principle
Competition	The allocation of distribution costs should support workable competition: • In retail and generation markets; and • Between investment in distribution and alternatives such as demand-side management and generation	• If a distribution charge falls to a greater extent on some retailers, some customers or embedded generators but not others, this may distort retail and generation competition, and competition among affected consumers. • Distribution pricing has the potential to favour particular technologies or connection arrangements through the incidence and structure of charges. • Distribution pricing may provide incentives for disconnection from the distribution network. This may become an increasing issue because of technological change, such as improved economics of distributed generation.	(d) Development of prices should be transparent, promote price stability and certainty for stakeholders, and changes to prices should have regard to the impact on stakeholders. (e) Development of prices should have regard to the impact of transaction costs on retailers, consumers and other stakeholders and should be economically equivalent across retailers. (c) Provided that prices satisfy (a) above, prices should be responsive to the requirements and circumstances of stakeholders in order to: (i) discourage uneconomic bypass; (ii) allow for negotiation to better reflect the economic value of services and enable stakeholders to make price/quality trade-offs or non-standard arrangements for services; and (iii) where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives (eg, distributed generation or demand response) and technology innovation. See also Principle (d)

	Application to distribution pricing	Examples of how distribution pricing can influence	Relevant Pricing Principle
Reliability	The allocation of distribution charges should support reliability investments where the marginal benefit of increased security and reliability equals the marginal cost of achieving it.	• Distribution pricing can signal the cost of investments to achieve reliability and encourage alternatives, such as demand-side management or investment in back-up or distributed generation.	See Principle (c) and (d)
Efficiency	Transaction, administrative and compliance costs with distribution pricing methodologies should be at efficient levels. Distribution pricing should support: • Efficient use of the network; and • Efficient investment by users of the network, including by consumers and in demand-side management, and by generators.	• A complex distribution pricing methodology can lead to high transaction and compliance costs. • A distribution pricing methodology that provides locational signals or peak use signals can influence the use of sunk cost assets and short-term efficient dispatch of embedded generation. • Allocation of costs to parties that influence the efficiency of outcomes can provide efficient signals for investment in the power system as a whole.	See Principle (e) See Principle (c) and (d) See Principle (c) and (d)

Appendix 2: Reponses to questions

Question Number	General comments	Response
Q1	Do you agree with the Authority's interpretation of its statutory objective with respect to distribution pricing? If you agree, please explain why. If you do not agree, please explain how you consider the statutory objective should be interpreted with respect to distribution pricing and the reasons for your interpretation.	We agree with Table 3. We also point out in Appendix 1 that the Pricing Principles address all points raised in Table 3.
Q2	Do you agree with the above application of the three limbs of the statutory objective to distribution pricing? If not, why not, and are there other examples of how distribution pricing can influence competition, reliability and efficiency?	See Q1.
Q3	Do you agree that a market-based distribution pricing methodology would tend to promote efficiency in network use and in investment in distribution networks, generation, demand management and the electricity industry more generally? If so, what are your reasons? If you disagree, what are your grounds for disagreeing?	Yes, assuming markets are either workably competitive, or that the pricing methodologies reflect pricing in a workably competitive market with similar characteristics.
Q4	Do you agree that market-based distribution pricing methodologies are likely to be more durable and stable than approaches involving administered charges? If so, what are your reasons? If you disagree, what are your grounds for disagreeing?	If the market is workably competitive, yes. If not, the issue is the extent to which administred charges reflect pricing in workably competitive markets with similar characteristics.
Q5	Do you agree distributors should use pricing methodologies that give preference to market-based approaches to distribution charges wherever such charges will be efficient and implementation will be practicable? If so, what are your reasons? If you disagree, what are your grounds for disagreeing?	We consider the market-like approach is the most relevant to electricity distribution (see paragraphs 60 - 64).

Question Number	General comments	Response
Q6	Do you agree the second, third and fourth ranked preferences should be for administrative approaches to distribution charges of exacerbators pay, beneficiaries pay and other charging options wherever such charges will be efficient and implementation practicable? If so, what are your reasons? If you disagree, what are your grounds for disagreeing?	The Pricing Principles are consistent with a market-like approach and there is no need to attempt to rank the other options in the proposed Framework.
Q7	Do you agree these actions can exacerbate investment? Are there other actions and, if so, what are they?	Yes, but we do not think this approach is useful for distribution pricing (see paragraphs 22 - 29), and recommend an alternative approach (see paragraphs 73 – 78).
Q8	Do you agree that exacerbators should be identified by determining which party or parties have the ability to act differently, thereby avoiding the need to augment the network? Is there an alternative approach? If so, please provide details.	See Q7.
Q9	Do you agree with the assessment of the price that should apply to exacerbators? Do you agree with the assessment of how exacerbators pay should apply in practice? Do you agree with the proposed approach for identifying the preferred option or options for applying exacerbators pay? Please provide explanations in support of your answers.	See Q7.
Q10	Do you agree these considerations should be taken into account under an exacerbators pay approach? Please provide an explanation in support of your view.	See Q7.
Q11	Do you agree that these ways can be used to identify beneficiaries? Are there others? If so, please provide details.	We do not consider this approach would work in practice for distribution (see sections 2 & 3).

Question Number	General comments	Response
Q12	Do you agree with the assessment of the price that should apply to beneficiaries? Do you agree with the assessment of how beneficiaries pay should apply in practice? Please provide an explanation in support of your answer.	See Q11.
Q13	Are there other alternative pricing options? Do you agree with the assessments of how incentive free and postage stamp pricing should be applied in practice? Please provide reasoning in support of your answer.	We support the continued use of the existing Pricing Principles, with the inclusion of the EA's statutory objective (see section 5).
Q14	Do you agree that the guidelines are consistent with the proposed decision-making and economic framework and therefore do not require any changes? If you agree please explain why and, if not, please explain why not.	Yes
Q15	Do you consider that the pricing principles and guidelines are consistent with the proposed decision making and economic framework? If you agree, please explain why. If you disagree please explain why not and how the principles should be changed.	Yes (see paragraphs 68 – 71).
Q16	Do you agree that pricing principle (b) should be interpreted as implying that where an alternative charging option is required prices should be set in a manner that minimises the impact of the charge on the use of the asset? If you agree please explain why. If you disagree please explain why not and please state how you consider this principle should be interpreted.	Principle (b) is focused on consumers' demand responsiveness.
Q17	Do you agree with the Authority's proposal to use the economic framework for distribution pricing as criteria for assessing distributors' application of the pricing principles? If you agree, please explain why and, if not, please explain why not.	No, see sections 2 & 3.

Question Number	General comments	Response
Q18	Do you have any comments on the proposed process for confirmation of the decision-making and economic framework and the Authority's review of distributors' pricing methodologies?	Any review should be undertaken on the basis of the regulatory guidance prevailing at the time the pricing methodologies were developed. Sufficient implementation time needs to be allowed between any change to the regulatory guidance and a review based on that changed guidance (see paragraphs 83 & 84).