
Submission to the Commerce Commission

on

Information Disclosure: Approaches
for Understanding EDB and GPB Cost
Efficiency

11 November 2011

Made on behalf of 21 Electricity Distribution Businesses



Submission on Information Disclosure: Approaches for Understanding EDB and GPB Cost Efficiency

1. This paper forms our submission on the Commerce Commission's (the Commission's) consultation paper, "Information Disclosure: Approaches for Understanding EDB and GPB Cost Efficiency" (the Consultation Paper), which has been prepared by PricewaterhouseCoopers (PwC) on behalf of the following 21 Electricity Distribution Businesses (EDBs):
 - Alpine Energy Limited
 - Buller Electricity Limited
 - Counties Power Limited
 - Eastland Network Limited
 - Electra Limited
 - Electricity Ashburton Limited
 - Electricity Invercargill Limited
 - Horizon Energy Distribution Limited
 - MainPower New Zealand Limited
 - Marlborough Lines Limited
 - Nelson Electricity Limited
 - Network Tasman Limited
 - Network Waitaki Limited
 - Northpower Limited
 - OtagoNet Joint Venture
 - Scanpower Limited
 - The Lines Company Limited
 - The Power Company Limited
 - Top Energy Limited
 - Waipa Networks Limited
 - Westpower Limited.

2. These businesses together supply 26% of electricity consumers, own 43% of total distribution network length and service 74% of the total network supply area in New Zealand. They include both consumer owned and non consumer owned businesses; and urban and rural networks located in both the North and South Islands.

3. We appreciate the opportunity to comment on the Consultation Paper. We would welcome the opportunity to discuss the points raised further with the Commission as the consultation process proceeds.

4. Our submission proceeds as follows:
 - We consider whether the proposed cost efficiency assessment is consistent with the purpose of information disclosure regulation;
 - We discuss the additional burden that requiring more and different information is likely to have on EDBs;
 - We outline several issues which may limit the robustness of any cost comparison and which the Commission should address before attempting to undertake an assessment;
 - We suggest alternative potential approaches to assess efficiency; and
 - We respond to your specific questions.
5. Our submission concentrates on assessments of EDBs' cost efficiency, and does not include any comments specific to gas pipeline businesses (GPBs).
6. We also note and support the ENA's submission on the Consultation Paper. In particular, we refer to the section on the purpose of information disclosure regulation and how an assessment of relative efficiency fits within this context, and the sections outlining issues to be considered before robust conclusions can be drawn from any assessment.

What is the Commission's Purpose for Assessing Cost Efficiency, and how does this Align with Part 4 of the Commerce Act?

What outputs will be generated, and how will they be used?

7. The Consultation Paper does not indicate what outputs the Commission will generate, or how they will be used. The Consultation Paper only indicates that there will be *"a comparison of expenditure across operators and an examination of cost trends"* (para 1.4), and that the Commission will *"[analyse] performance and [publish] the results"* (para 1.5).
8. Elements which are unclear from the Consultation Paper include:
 - How the Commission intends to present its findings, and what type of information and/or commentary might be included (including any caveats regarding the limitations of the analysis undertaken).
 - What type of conclusions the Commission envisages drawing. For example, will exempt and non-exempt businesses be considered differently, will it label some suppliers as "efficient" or "inefficient", and/or will it quantitatively state cost reductions that certain suppliers could achieve?
 - How the Commission will draw any conclusions from the analysis, and whether EDBs will be able to comment on draft results.
 - Over what time period the Commission intends capturing data and undertaking its analysis.
9. We believe the Commission has an obligation to ensure its regulatory mechanisms are developed as cost effectively as possible. This requires specifying information requirements which are sufficient to meet the purpose of information disclosure, but no more. This includes both the Commission's direct costs and those incurred by regulated suppliers. We believe that the proposed cost efficiency benchmarking process is particularly at risk of expanding to include data which may be "nice to have" or "potentially interesting" rather than "must have". Without having specified the outputs it is not possible to distinguish between these and ultimately the suppliers and their customers must carry the

implementation and compliance costs associated with collecting, managing and providing the data to the Commission, as well as the Commission's implementation, analysis and monitoring costs.

How does the purpose of the cost assessment align with the purpose of information disclosure regulation?

10. The Consultation Paper states that assessing cost efficiency “*assists in identifying the scope for a firm to reduce its costs while maintaining the same outputs and quality*” (para 2.1). From the Consultation Paper, it appears that the Commission wishes the information disclosure requirements to include sufficient information for it to undertake this assessment. In addition the Consultation Paper indicates that the Commission plans to make efficiency assessments based on the information it is to collect via information disclosures.
11. However, the Consultation Paper does not demonstrate why such an assessment, and the information disclosure necessary to undertake that assessment, is required within the context of the purpose of information disclosure regulation. The purpose of information disclosure regulation as stated in Section 53A of the Act, is:

“The purpose of information disclosure regulation is to ensure that sufficient information is readily available to interested persons to assess whether the purpose of this Part is being met.”

12. “[T]his part” in the above is Part 4 of the Act, and the purpose of Part 4 is stated in Section 52A(1) of the Act as:

“The purpose of this Part is to promote the long-term benefit of consumers in markets referred to in section 52 by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services—

(a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and

(b) have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and

(c) share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and

(d) are limited in their ability to extract excessive profits.”

13. Thus the purpose of information disclosure is to allow an assessment of regulated suppliers' achievement against the purpose of Part 4. Importantly, it is to allow an assessment of achievement against the four subparts of Section 52A(1) above. The Consultation Paper appears to focus on subpart (b) of the Purpose Statement, and in particular the first part of subpart (b) – “*have incentives to improve efficiency*”. However the Consultation Paper provides no indication of whether the proposals are consistent with the remainder of the Purpose Statement.
14. There are tensions between the subparts of the Purpose Statement, in particular the ‘incentives to innovate and invest’ and to ‘provide services at a quality that reflects consumer demands’ with the ‘incentives to improve efficiency’ and ‘share efficiency benefits with consumers’ and also with the ‘limit excess profits’ subparts. Accordingly it is not possible to consider one objective in isolation from the others. We believe this is an important omission from the Consultation Paper.
15. In addition the Consultation Paper does not consider other components of the regime which are relevant to meeting the objectives of the Purpose Statement. Other regulatory mechanisms (default and customised price/quality paths) and the consumer ownership arrangements which were deemed to be consistent with exemption from price-quality regulation for some EDBs are relevant to this

consideration. We submit that it was never intended that the information disclosure regime fully meet the objectives of Part 4, even for consumer owned businesses that are exempt from price-quality regulation. Accordingly the information disclosure requirements should be developed with consideration of the incentives provided for via consumer ownership and other regulatory mechanisms. This is also an important omission from the Consultation Paper.

16. The introduction of the amendments to the regulation of consumer owned businesses via the Commerce Amendment Bill in 2008 were a directly aimed at reducing regulatory costs to tailor the regime to New Zealand's small size (with small firms and limited resources) and to reflect the fact that consumers as owners "*are able to ensure that the business acts in their interests*".¹ Consumer owned businesses involve consumers directly in the election of consumer representatives. Those representatives are responsible for appointing Board members and jointly setting performance objectives for the business. These are set out in the annual Statement of Corporate Intent which ultimately governs the financial and service performance of the business, including price, profit, asset management, investment and service quality. This is a cost effective way of ensuring that consumer needs are met without intrusive external regulatory intervention, consistent with the objectives of the Part 4 reforms.
17. The Commission is required to summarise and analyse information disclosures in order to promote greater understanding of the performance of individual regulated suppliers, their relative performance and the changes in performance over time.
 - Section 53B(2) of the Commerce Act (the Act) states that:

"If a supplier of goods or services is subject to information disclosure regulation, the Commission—

(a) may monitor and analyse all information disclosed in accordance with the information disclosure requirements; and

(b) must, as soon as practicable after any information is publicly disclosed, publish a summary and analysis of that information for the purpose of promoting greater understanding of the performance of individual regulated suppliers, their relative performance, and the changes in performance over time."
18. "[P]erformance", as used in Section 53B(2)(b) above, is not defined in the Act. The Consultation Paper states that:
 - "*A comparison of expenditure across operators and an examination of cost trends will address part of [the requirement in Section 53B(2)(b)];*" (para 1.4) and also that
 - "*Among other things, disclosing information about the relative performance of regulated suppliers should:*
 - *Assist regulated suppliers in identifying good practice in different areas of their business;*
 - *Facilitate and reveal improvements in sector performance over time;*
 - *Provide valuable insight into the efficiency of suppliers, and thus the impact of Part 4 regulation.*" (para 1.5)

¹ Commerce Amendment Bill, Explanatory Note, April 2008 page 8

19. In our view, since it is not further defined, “*performance*” should be defined in the context of the purpose of information disclosure regulation.
20. The statements from the Consultation Paper which we quote above outline some of the uses that the Commission sees for the information disclosed and the Commission’s analysis of it. However, these uses are not aligned with the purpose of information disclosure regulation, as stated in the Act. The Consultation Paper appears to suggest that the Commission envisages a wider purpose of information disclosure than that which is stated in the Act.
21. For example, while “[*facilitating*] ... *improvements in sector performance*” (as used in para 1.5 of the Consultation Paper) may be desirable, this is not part of the purpose of information disclosure which is to assess performance. Therefore suppliers should not be required to disclose information which assists this.
 - The purpose of information disclosures is not to help achieve the purpose of Part 4, but rather only to allow interested persons to assess whether the purpose is being met. While presenting the results of comparative assessment could potentially strengthen the incentives for cost reduction, this is not the purpose of information disclosure regulation.
 - The DPP/CPD framework itself provides incentives for EDBs to seek efficiency gains. Any gains are shared with customers at the next regulatory review. The purpose of information disclosure is to help assess whether the regime provides such incentives.
22. The Consultation Paper suggests that the Commission envisages undertaking substantially more analysis than is necessary to assess performance against the purpose of Part 4. This will necessarily involve the Commission requiring suppliers to disclose substantially more information than would otherwise be the case. For the reasons set out above we would have expected to see a more extensive consideration of the purpose of this analysis than the very limited discussion provided in Section 1 of the Consultation Paper.
23. We do not believe that requiring information to be disclosed for the sole purpose of allowing the Commission to compare cost efficiency across suppliers is consistent with the purpose for information disclosure. Accordingly we submit the Commission should re-evaluate its proposed approach consistent with the Section 53A purpose for information disclosure, more fully consider each subpart of the 52A Purpose Statement and also more fully consider the role of ownership and price-quality regulation in meeting the objectives of Part 4.
24. Accordingly we support the ENA’s submission which sets out a proposed process for determining information requirements as follows:
 - Firstly specify the information interested persons require to assess whether the purpose of Part 4 is being met including consideration of the incentives arising from price-quality regulation and consumer ownership;
 - Then consider whether the information which is already disclosed meets this purpose, and if necessary identify additional information requirements;
 - Then consult on the information requirements required to meet the ID purpose; and
 - Finally, the Commission prepares its summary and analysis of the information which is disclosed, determined via the process outlined above.

We assume the results of any efficiency assessment will not be used to set regulated prices

25. In some countries, the industry regulator uses the results of an assessment of relative cost efficiency to set prices at regulatory reviews. One method often used is for regulatory cost forecasts to be partly based on an assumption that the suppliers deemed to be “relatively inefficient” in the comparative assessment can “catch-up” to the “relatively efficient” suppliers over a period of time.
26. The purpose of information disclosure is to assess performance against the purpose statement, not set price-quality controls or examine a capex and opex plan such as required for a price control approval process (for example as for a customised price-quality path). Using the Commission’s monitoring and analysis of information disclosures to set prices, rather than simply to provide interested persons with information, is outside the purpose of information disclosure regulation.

Requiring Additional Information Disclosures and Standardised Cost Collection will be Burdensome for EDBs

27. The Consultation Paper suggests that EDBs may be required to disclose a lot more information than under the current 2008 information disclosure requirements. It is proposed that the additional information to be disclosed will need to be standardised across EDBs.
28. This will likely require a change in the way EDBs collect data, and in the way they allocate costs and define certain activities. Such changes are far from trivial, and are likely to be very costly for suppliers. Small EDBs will have particular trouble absorbing these costs into their budgets.
29. Furthermore, increased standardisation of costs is inconsistent with the Commission’s approach to cost allocation input methodologies, where EDBs are able to use their own allocations and methods.
30. In a presentation accompanying the Consultation Paper, the Commission states that information disclosure requirements should be “*cost-effective for suppliers to produce*”, and that “*information requirements should align with the type of information that suppliers need to run their business.*”² We agree with this. However the Consultation Paper does not set out what criteria the Commission anticipates using to determine what is cost-effective for suppliers. This is critical to determining what information is reasonable to meet the purpose of information disclosure. It is tempting to continually expand the disclosure requirements and collect more and more data without adequate consideration of cost and benefit. We caution against this and suggest that more data does not necessarily provide more information. Data should be sufficient to meet the purpose, but no more.
31. Unfortunately, the information that the Consultation Paper suggests might be required will not always align with what EDBs need to run their businesses. For example, the information on capital costs outlined in paragraph 4.10 of the Consultation Paper includes a lot of data which is not currently part of Asset Management Plans (AMPs). Requiring EDBs to provide this information means that they will either need to change the way they develop AMPs or to collate a considerable amount of data which is not currently reported and may not be collected.
32. It is the standardisation which is costly. Requiring information to be presented in a format which is different to that currently used within a business, or for which current processes are not designed to manage adds complexities and compliance cost. Whilst the Commission may form a view on the information it expects each EDB to have to run its business this may not align with each supplier’s own view. The large range in business scale in New Zealand is a relevant factor in this respect. Larger businesses have different operating practices to smaller businesses due to the manner in which information is communicated within the organisation and the level of specialisation within teams or

² Commerce Commission (7 October 2011), “Information Disclosure Requirements for Energy: Sector Briefing on Emerging Views”, slide 13.

individual roles. In addition, business processes tend to reflect each supplier's own operating priorities, and the maturity of information systems and processes within an organisation may differ depending on those priorities.

33. This is also no discussion in the Consultation Paper of whether the potential benefits of the relative cost efficiency assessment are likely to outweigh the additional costs that the information disclosures, and in particular the increased standardisation of data, will impose on EDBs. This is an important evaluation that the Commission needs to undertake before it requires EDBs to collect a large amount of information that they don't currently collect and substantially alter their cost allocation processes.

There are Several Issues which should be Addressed Before Robust Comparisons can be made

34. In order to provide information which allows interested persons to assess the performance of EDBs, any analysis undertaken and conclusions drawn from this analysis must be based on a robust methodology. The Commission must ensure that the results of cost comparisons reflect actual cost efficiency differences, that any conclusions the Commission draws from the results are appropriate, and that the Commission provides sufficient information to allow other interested persons to draw appropriate conclusions.
35. If the published results do not reflect actual cost efficiency differences and/or the conclusions drawn are inappropriate, this will distort EDBs' incentives to reduce their costs. Perhaps more importantly it may also distort incentives to innovate and invest, and provide services consistent with consumer demands. Such a result would be inconsistent with the purpose of Part 4 of the Act.
36. There are several potential issues which could result in either the results of cost comparisons not reflecting actual differences in cost efficiency and/or the conclusions drawn from those results being inappropriate. We outline some of the key issues below. We expect the Commission to consider if and how it can mitigate the effects of each issue before undertaking any cost efficiency assessment.

It is Difficult to Construct Economic Models which will provide a Robust Comparison of the Cost Efficiency of Electricity Distribution Businesses

37. The Commission envisages using economic models to undertake comparisons of costs between the EDBs. The stated objective is to identify the scope for each business to reduce costs – that is, to identify differences in cost efficiency between the businesses.
38. While the Commission has not specified which of several possible techniques it would prefer to use to compare costs, all techniques involve some inherent limitations. Accordingly, the results of the comparison, in particular the differences in costs identified, cannot necessarily be attributed to efficiency differences.
39. The two key issues associated with using economic models to assess relative cost efficiency are discussed below. There is the potential for further problems, depending on the implementation of a given technique. For a more in-depth discussion of the issues, see Shuttleworth (2005).³

Well-specified models will have many explanatory factors and few observations

40. The costs of electricity distribution depend on a large number of factors. Each factor may also require multiple variables to fully describe it. A correctly specified economic model will therefore have a large number of explanatory factors.

³ Shuttleworth, G. (2005), "Benchmarking of electricity networks: Practical problems with its use for regulation", *Utilities Policy*, 13: 310-317.

41. There are 29 EDBs. 29 observations is not enough to provide useful results using a regression with many variables – there are not enough degrees of freedom to robustly analyse the variation in costs. One approach often used to get around this issue is to only include a small number of the most important explanatory factors in the model. However, this ensures that the model is deliberately mis-specified. The means that the residual will be partly explained by the factors that have been left out of the model, and this in turn reduces any ability to claim that the residual is due to differences in efficiency.
42. Other approaches to minimise the number of explanatory factors include the following:
 - Costs can be disaggregated, which may help reduce the number of key drivers for each cost type. However this requires disaggregated data to be collected, including consistent cost allocation across EDBs, and for costs to be separable across the cost types. This increases the compliance cost burden for regulated suppliers.
 - Composite variables (e.g. two variables summed together) can be used. However this makes specifying the correct form of the model even more difficult.
 - The use of panel data increases the number of observations. However, for this to be used there needs to be consistent data available over a number of years.

The residual cannot necessarily be interpreted as entirely due to efficiency differences

43. Almost all benchmarking literature attributes the residual gap between a business' observed costs and the "frontier costs" (the modelled costs of the most efficient business, if it had the same level of cost drivers) as due to efficiency differences. We assume that the Commission envisages doing the same. Unfortunately, this presumes too much.
44. The residual gap is simply unexplained by the explanatory factors in the model, and can be due to any factor or factors not contained in the model. Unless the model is perfectly specified, the residual will be due to both efficiency differences and factors not included in the model – and it is impossible to determine the relative impact of each.
45. The costs of individual EDBs are partly influenced by cost drivers which are specific to certain locations (and therefore, businesses). Since these are specific to a location, they will have less effect on the costs of other EDBs. If the Commission limits the number of explanatory factors in the model (in order to maximise the degrees of freedom, as discussed above) then these factors are unlikely to be included in the overall model. These omitted variables are likely to have a non-trivial impact on the residual. Attributing all of the residual to efficiency differences doesn't take into account the effect of these factors. Small businesses are likely to be especially impacted, since their costs are more susceptible to any movements in a certain cost driver.
46. If all the residual was due to efficiency differences, then we would expect the estimated residual to be broadly the same under each of the different techniques. While the Commission has not presented the results of any technique other than COLS, the majority of benchmarking studies of electricity distribution businesses overseas show that results generally vary between the technique used, often quite markedly. This does not provide reassurance that these techniques produce results which can reasonably be trusted to demonstrate cost efficiency differences between EDBs.

Opex and capex are substitutable

47. We agree with the Commission that EDBs can trade-off increases in opex for increases in capex.
 - For a given cost type, a business could be seen as "relatively efficient" simply because they have pushed costs into other cost types.
 - If opex and capex are assessed separately, the "most efficient firm" (as per the results of the assessment) is likely to be different for opex and capex. If the opex and capex of the two

respective firms is combined, this will give an overall estimate of costs which no business has achieved and can provide a misleading view if used in an inappropriate way.

- It is unclear how the Commission intends to assess the level of activity on a network, as different EDBs may experience very different demands on their network at any point in time.

48. We would prefer an assessment of total costs to one which considers opex and capex separately.

Previous regulatory decisions can influence the results

49. Two EDBs could have different cost levels because they were subject to different efficiency incentives in the past. For example, a business which has been subject to regulatory pricing for a relatively long period of time may have relatively low costs because of this. Current regulatory incentives, such as price and quality controls will also influence current cost structures. This does not mean that the two businesses' costs cannot be compared, but that conclusions drawn from the results should take into account external regulatory situations, both past and present. Sufficient information should be provided alongside the results to allow interested persons to draw the appropriate inferences.

50. In addition previous investment decisions limit options available to current network managers. Fundamental decisions about the underlying network design and configuration were made in the past. This limits the options available to current managers particularly where consumer requirements and consumer mix have changed over time.

Costs can differ because of quality and service performance differences

51. If possible, quality should be held constant across the assessment. Whether the comparison is between businesses or over time, a comparison of costs should hold both the level of outputs and the quality of those outputs constant – otherwise the costs are not producing the same thing, and the comparison is not like-for-like. We note that depending on the assessment being undertaken, accurately controlling for quality differences can be difficult.

It is difficult to usefully incorporate international comparators due to the additional explanatory factors required, while the feasibility of using sub-company data depends on the nature of EDBs' costs

52. There is considerable diversity amongst the 29 New Zealand EDBs. Increasing the sample size by including international comparators will only exacerbate this. Differences between international comparators and the New Zealand businesses need to be controlled for in the economic model, and this requires additional explanatory factors. It is quite possible that despite the increase in the sample size, the additional variables required will actually reduce the accuracy of the results.⁴

53. We also note that the Commission's summary and analysis role, as set out in section 53B(2)(b) must be undertaken consistent with the purpose for information disclosure (ie: to assess performance against the 52A purpose statement), and in respect of suppliers which are subject to information disclosure. This suggests that international comparisons may be inconsistent with the Commission's summary and analysis role – which refers to relative performance with reference to regulated suppliers as per Part 4.

54. Whether sub-company data can usefully be used to allow comparisons depends on the separability of costs and how EDBs determine their total costs between components of the business.

- If costs are not easily separable into components, this limits the ability to undertake sub-company comparative analysis.

⁴ Shuttleworth, G. (2005), op. cit., page 313.

- Furthermore, if EDBs allocate shared costs into components using cost drivers which are different to the cost drivers ultimately used by the Commission in its models, then the results could be distorted.
- Lastly, this will be costly to implement, particularly for the smaller EDBs who cannot easily absorb such increases in costs within their operating budgets.

We suggest that the Commission initially focuses on existing EDBs, and that it tests the data before considering whether further disaggregation is required.

Alternative Possibilities for Assessing Cost Efficiency

55. We suggest the Commission undertake a conservative approach to cost efficiency assessments in the first instance before imposing the complex and costly process indicated in the Consultation Paper.

Intertemporal assessments

56. Given the inherent difficulties with undertaking comparative assessments, we suggest that if the Commission wants to assess efficiency, it concentrate on the trends demonstrated by each company – that is, the changes in costs (controlled for outputs and quality) of each EDB over time.
57. These single-company intertemporal assessments allow the Commission to assess the extent to which each EDB's costs are changing over time, and the extent to which this may occur in the future.
58. A comparison of the rates of change of each company's costs can provide some evidence with which to compare EDBs' performance. However we note that EDBs which have made the largest improvements in the past may not be able to continue to achieve gains of that size while other EDBs might be able to.

Aggregate assessments

59. If the Commission does undertake relative cost assessments then we recommend using cost data at a relatively aggregated level.
60. The more that an EDB's total costs are disaggregated, the more difficult it is to ensure that each EDB's cost values are measured consistently, the greater the burden on the EDBs to collect the data, and the more the possibility for trade-offs between cost types can distort the individual assessments.
61. Ideally, an assessment of total costs would be used. But if the Commission cannot find a method of assessment which suits opex and capex, then separate opex and capex assessments might be adequate, if the Commission can demonstrate that the trade-offs between these cost types are small.
62. Even better than comparative assessments of each EDB's aggregate cost is an inter-temporal assessment of the changes in aggregate costs across the industry.

There is sufficient data already available to undertake cost assessments

63. The 2008 information disclosure requirements include cost data, both at an aggregate level and disaggregated into several areas for both opex and capex. The requirements also include a large number of variables which are likely to significantly influence costs. The Commission therefore has available a large dataset with which it can use to undertake comparative assessment – it has not demonstrated that this data is insufficient. Further assessment of the usefulness of the existing dataset should be investigated *before* new requirements are specified.

Responses to CC's Questions

Question 1 How much insight would an assessment of operating expenditure based on NZ comparators alone provide, for EDBs and GPs?

64. The insight able to be gained is limited by the robustness of the methodology used. As stated in paragraph 38 above, no comparative methodology can give a sufficiently accurate picture of relative EDB opex efficiency. However, in the first instance we submit that comparative assessments should only be made between EDBs, and initially for each EDB over time.

Question 2 How insightful could international comparators be in assessing EDB and GPB expenditure?

Question 3 What companies, countries or datasets should be included in the analysis?

65. International comparators would not provide much insight. We therefore do not recommend that any international companies, countries or datasets be included in the analysis and as stated above we do not believe this is consistent with the section 53B requirements for summary and analysis.

66. The key problem with including international comparators in a model is that the differences between them and the New Zealand businesses need to be controlled for, and this requires additional explanatory factors. It is quite possible that despite the increase in the sample size, the additional variables required will actually reduce the accuracy of the results.⁵

Question 4 How appropriate are sub-company comparisons of costs?

Question 5 How feasible and costly would it be to collect sub-company cost and characteristic data to enable sub-company comparison?

67. It depends on the separability of costs and how EDBs determine their total costs between components of the business.

- If costs are not easily separable into components, this limits the ability to undertake sub-company comparative analysis.
- Furthermore, if EDBs allocate shared costs into components using cost drivers which are different to the cost drivers ultimately used by the Commission in its models, then the results could be distorted.
- Lastly, this will be costly to implement, particularly for the smaller EDBs who cannot easily absorb such increases in costs within their operating budgets.
- We suggest that the Commission initially focuses on existing EDBs, and that it tests the data before considering whether further disaggregation is required. We do not support sub-company comparisons in the first instance. The only possible exception may be where networks are geographically non-contiguous, are of a material size and have fundamentally different characteristics. This differs to the current definition of non-contiguous for disclosure purposes.

Question 6 What factors (outside management control) drive industry wide opex?

Question 7 To what extent does the current information disclosure data capture these factors?

Question 8 What cost drivers, if any, (outside management control) are unique to your EDB or GPB?

Question 9 To what extent does the current information disclosure data capture these factors?

Question 10 What factors (other than changes to input prices) influence opex over time?

68. In our view, the appropriate method for determining the important explanatory variables for inclusion in an economic model is first to specify the dependent variable, and then to test different combinations of explanatory variables to understand correlations and explanatory power.

69. The current information disclosures include a large number of variables which could be important cost drivers. The intensity measures already disclosed are directly relevant to the cost drivers for capex and opex. However fundamentally it is the network asset management plan which drives the major components of opex and capex for an EDB. This reflects past decisions and future expectations.

70. If the Commission wants to develop models of EDB costs, we suggest that the Commission firstly determines which costs it wants to compare across companies, and then use the current information disclosures to experiment with different economic models of those costs.

71. Drivers of opex include:

⁵ Shuttleworth, G. (2005), op. cit., page 313.

- Network size
- Network design/configuration (incl. transmission/distribution boundary)/equipment type
- Overhead/underground mix
- Demand/volume/energy/connection density
- Network age/condition
- Reliability targets
- Terrain/access to assets/remoteness/vegetation/climate/proximity to coast/ground conditions
- Rate of growth (past and expected)
- Contractor, labour and materials markets
- Local Body/Transit requirements/other legislative requirements
- Customer mix/end-use
- Technological change.

Question 11 To what extent should quality be taken into account when assessing cost efficiency?

72. If possible, quality should be held constant across the assessment. Whether the comparison is between businesses or over time, a comparison of costs should hold both the level of outputs and the quality of those outputs constant – otherwise the costs are not producing the same thing, and the comparison is not like-for-like.
73. We note that depending on the assessment being undertaken, accurately controlling for quality differences can be difficult.

Question 12 What level of opex should be assessed? Should the current sub-categories of EDB and GPB opex (e.g. general management, administration and overheads) be separately assessed, should further disaggregated cost data beyond these categories be collected and assessed, or should the analysis focus on total opex only?

Question 13 What components of opex should be separately benchmarked?

74. As discussed in paragraph 59 above, if the Commission wishes to undertake a comparative assessment of costs, we recommend using cost data at a relatively aggregated level. We would prefer to use total costs, or at least total opex and capex. Certainly costs should not be disaggregated further than the level in current information disclosures.
75. Not only will disaggregation lead to reduced robustness of the assessment, collecting and disclosing this data, and ensuring its consistency with that of other EDBs, will be very costly for EDBs.
76. We support retention of the current disclosure cost categories, with improved definition where required to ensure consistent interpretation across the industry. These are the same as those include in the Input Methodologies, and retaining the current categories will help achieve a time series dataset for the industry which will be disrupted if the categories are once again modified.

Question 14 How much insight would external comparisons of common functions provide?

Question 15 What functions should be benchmarked and how easily available is cost data at a function-level?

Question 16 What industries and operators should be included when benchmarking these functions?

77. External comparisons of common functions are unlikely to provide much insight. As with the use of international comparators, additional variables are required to control for differences between

businesses and this is likely to limit any additional value the extra observations bring. We do not support them and do not believe they are consistent with the purpose of information disclosure which is to assess performance of regulated suppliers against the purpose statement.

Question 17 Should nature-of-work comparisons be further considered in assessing EDB and GPB opex efficiency? If so, what sectors should be included in the analysis?

78. This is a completely different assessment from that being considered throughout the rest of the Consultation Paper. Comparing TFP over time estimates the extent to which a company can become more efficient on an ongoing basis, not the relative differences between companies.
79. While we approve of the use of intertemporal aggregate techniques, the extent to which this will provide robust results depends on the data.
80. As the Commission notes in the Consultation Paper, estimating accurate TFP data consistently over a long period is very difficult. If the Commission is unconvinced of the robustness of the available New Zealand TFP data, as it states in paragraph 3.35 of the Consultation Paper, then it is difficult for anyone else to be convinced that the results of assessments using that data are accurate and useful.

Question 18 To what extent should assessments of historical capex based on direct comparisons be considered as part of summary and analysis?

81. We agree with the Commission's statement in paragraph 4.1 of the Consultation Paper that "direct comparisons between suppliers are only of limited usefulness in assessing capex", given the requirements of each EDB's network drives its capital expenditure. We believe the most useful information will be obtained by looking at a supplier's capex overtime. While assessments of efficiency of past capex are not useful, and we agree should be outside the scope of the summary and analysis and assess performance objectives, they do provide context for forward looking capex for each supplier. This is likely to be more relevant than information from another supplier.

Question 19 What are the material assets and activities that should be included in a capex assessment?

Question 20 What are the drivers of activity on these assets?

Question 21 How can capex effectiveness be measured?

Question 22 How suitable is the proposed approach for assessing capex?

82. We agree with the Commission that an engineering assessment is a preferable method for assessing the efficiency of an EDB's capex than a comparative assessment of the type that the Commission envisages undertaking for opex.
83. However, we caution the Commission to avoid undertaking assessments which are overly burdensome, on either the EDBs or the engineering consultants. It is far from clear that the benefits from assessments of this sort outweigh the costs, or that this is consistent with the purpose of information disclosure.
84. As stated in paragraph 31 above, the Commission envisages requiring EDBs to disclose substantial amounts of information that not only do EDBs not currently disclose but that they do not currently collect. Requiring EDBs to provide this information means that they will either need to change the way they develop AMPs or to collect a considerable amount of data which is not currently collected. This is likely to be very burdensome for EDBs, particularly the smaller businesses. In addition it is not clear how this approach is consistent with the proposed 'engineering assessment'.
85. In our view the AMP contained the information which supports the capex plan. As stated above historical expenditure provide some context, as do demand forecasts, and renewal plans. These are influenced by the same drivers set out in response to questions 6-10 above, as well as projected consumer demand and expected asset failure.

- Question 23** To what extent do suppliers consider the opex-capex trade-off could distort an assessment of expenditure that is based on separate reviews of opex and capex?
- Question 24** Which components of expenditure have significant opex-capex trade-offs?
- Question 25** How should the cost analysis take into account any opex-capex trade-offs?

86. We agree with the Commission that EDBs can trade-off increases in opex for increases in capex.

- For a given cost type, a business could be seen as “relatively efficient” simply because they have pushed costs into other cost types.
- If opex and capex are assessed separately, the “most efficient firm” (as per the results of the assessment) is likely to be different for opex and capex. If the opex and capex of the two respective firms is combined, this will give an overall estimate of costs which no business has achieved and can provide a misleading view if used in an inappropriate way.
- It is unclear how the Commission intends to assess the level of activity on a network, as different EDBs may experience very different demands on their network at any point in time.

87. As we discuss in paragraph 48 above, we would prefer an assessment of total costs to one which considers opex and capex separately.

General

88. We trust that this submission provides useful input for the Commission in considering further its proposals for undertaking comparative assessments of EDBs’ cost efficiency. We would be happy to answer any questions you may have regarding this paper.

89. The primary contact for this submission is:

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