Summary of submissions

Transmission Pricing Methodology: Connection charges

23 September 2014

Contents

1 Introduction

1.1 The Electricity Authority (Authority) is reviewing the Transmission Pricing Methodology (TPM), which specifies the method for Transpower New Zealand Limited (Transpower) to recover the costs of providing transmission services. The TPM is contained in Schedule 12.4 of the Electricity Industry Participation Code 2010 (Code).

1.2 The Authority considers that the current TPM can be improved so as to better meet the Authority's statutory objective to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers. The Authority's consultation paper 'Transmission Pricing Methodology: issues and proposal' was released in October 2012 (October 2012 issues paper), to obtain feedback on a package of charging approaches (the TPM proposal).

1.3 Extensive feedback on the TPM proposal was received through submissions and cross submissions on the TPM proposal, and from verbal and written feedback during and following the TPM conference held in May 2013. Stakeholders raised concerns about, and made suggestions on, the Authority's TPM proposal. As a result of this feedback, the Authority decided to issue a second issues paper.

1.4 Prior to developing a second issues paper, the Authority has decided to prepare a series of working papers to analyse the issues raised by submitters. Feedback on the working papers will form a key input into the second issues paper.

1.5 In this regard, on 13 May 2014, the Authority published a working paper titled "Transmission Pricing Methodology: Connection charges" (the working paper).[1] The working paper examined:

(a) whether there is an efficiency problem where connection costs are shifted into the interconnection charge

(b) whether moving to depreciated replacement cost (DRC) charges would improve efficiency

(c) whether there is an issue of cross-subsidisation of operating and maintenance expenses in the connection pool, and whether this could be remedied by moving to an actual cost-based methodology.

1.6 The working paper concluded that:

(a) there were inefficient incentives to shift connection costs into the interconnection charge

(b) there were advantages and disadvantages of moving to a DRC-based charge, but that there might be net benefits from moving to DRC-based charges

(c) an actual cost-based methodology for allocating operating and maintenance expenses would be more efficient.

[1] The first working paper 'Transmission pricing methodology: CBA' was published on 3 September 2013. The second working paper 'Transmission pricing methodology: Sunk costs' was published 8 October 2013.

1.7 The working paper sought views on these matters.

1.8 On 4 June 2014, the Major Electricity Group (MEUG) provided the Authority with a list of questions on the working paper.

1.9 As some of these questions were technical in nature, or required information that the Authority did not possess, the Authority provided some of MEUG's questions to Transpower and sought its response. The questions put to Transpower were questions 1, 2, 3, 4, 5 and 8. Transpower provided its response to those questions on 18 June 2014.

1.10 The questions and answers, and all of the submissions received, are available on the Authority's website: http://www.ea.govt.nz/development/work-programme/transmission-distribution/transmission-pricing-review/consultations/.

1.11 This paper is a summary only and does not contain an exhaustive list of submissions made on each subject.

2 Overview of submitters

2.1 Eighteen submissions were received from submitters, covering a range of topics in the working paper. Table 1 lists the submitters.

Retailer/Generator	Distributors	Consumers	Others
Contact Energy	Counties Power	Fonterra	Transpower
Meridian Energy	Electricity Networks Association (ENA)[1]	Carter Holt Harvey	
Nova Energy	PricewaterhouseCoopers (PwC) on behalf of 21 distributors[2]	Major Electricity Users' Group (MEUG)	
Genesis Energy	Vector		
Mighty River Power	Powerco		
Pioneer Generation	Orion New Zealand		
Trustpower	Unison		

Source: Electricity Authority

[1] ENA's submission was made with the explicit support of its 29 members: 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, and Westpower Ltd.

[2] PwC's submission is on behalf of the following 21 distributors: Alpine Energy Ltd, Aurora Energy Ltd, Buller Electricity Ltd, Eastland Network Ltd, Electra Ltd, EA Networks 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, OtagoNet Joint Venture, ScanPower Ltd, The Lines Company Ltd, The Power Company Ltd, Top Energy Ltd, Waipa Networks Ltd and Westpower Ltd.

3 Form of Summary

3.1 The summary has been grouped as follows:

(a) Part 1: Comments on legal and process issues (item numbers 1-23)

(b) Part 2: Comments about the status quo (including comments on whether there is inefficient shifting of connection costs to the interconnection pool) (item numbers 24-78)

(c) Part 3: Comments on DRC-based charges (item numbers 79-143)

(d) Part 4: Comments on actual allocation of operating and maintenance costs (item numbers 144-162)

(e) Part 5: General/other comments about the proposals (item numbers 163-176).

PART 1: COMMENTS ON LEGAL AND PROCESS ISSUES

Issue	Submitter(s)	Submission	Submission ref	Item no
Problem definition/materiality of problem	ENA	If, despite submissions, the Authority thinks there is a real efficiency problem, it needs to consider whether the proposed changes would eliminate the inefficiency.	Para 11	1
	ENA	The Authority has released the connection charges paper prematurely. The Authority needs to validate whether theoretical concerns are real before issuing a consultation paper.	Para 8	2
	Mighty River Power	The problem definition and potential inefficiencies have not been quantified with real world examples, despite significant historical investment in connection assets.	Page 1	3
	Orion	The working paper does not clearly articulate problems or establish that they are material. Orion is supportive of the Authority producing a problem definition working paper.	Page 1	4
	Transpower	Transpower strongly supports the Authority's efforts to describe the problem it sees with the status quo. This has allowed the business to test and help inform the logic and assumptions underpinning the analysis. The Authority has falsely concluded that material problems exist when they do not. This has happened because the Authority has thought about how firms might behave, rather than how they do behave.	Page 2	5
	Transpower	The working paper misunderstands the incentives that apply to Transpower and its customers, ignores empirical evidence, and fails to properly account for Transpower's investment and quality regulation under Part 4 of the Commerce Act.	Pages 1, 3	6

Issue	Submitter(s)	Submission	Submission ref	Item no
	Trustpower	No convincing problem definition has been provided in the working paper.	Para 3.1	7
	Unison	The approach that the Authority has taken to the TPM has been largely theoretical. Unison questions the worth of consultation papers when there is little evidence to support the assumptions made. The Authority needs to do more in its working papers to ensure there are practical examples provided or case studies used. Consultation papers should be used to test whether theoretical issues are real in practice.	Page 4	8
CBA	Carter Holt Harvey	It would have been appropriate to carry out a rough estimate of possible benefits. Significant resources have been used to respond to this working paper, so there should have been a firmer basis for justification of the working paper. If the Authority wants to change from the status quo, further work is needed about whether the current connection asset cost allocation methodology supports efficient investment (e.g. detailed analysis of present connection assets) before it makes a decision about whether to develop a CBA.	Pages 1, 3	9
	ENA	The CBA lacks rigour and is based on subjective opinions.	Para 9	10
	Fonterra	It is difficult to assess the proposal against the Authority's statutory objective without a CBA. Fonterra looks forward to a robust CBA in the second issues paper.	Para 11	11
	Meridian	The Authority should do a qualitative assessment as part of the second issues paper, with input from Transpower.	Page 2	12
	MEUG	Conclusions can only be made after the Authority has undertaken a CBA.	Page 1	13

Issue	Submitter(s)	Submission	Submission ref	Item no
	Transpower	The Authority should not change from the status quo. If the Authority wishes to undertake further work, it needs to test its hypothesis empirically and/or undertake a CBA.	Page 9	14
Objections to considering connection charge in isolation	ENA, Powerco, Unison	The Authority is approaching the TPM review in a piecemeal fashion.	ENA para 10, Powerco page 1, Unison page 4	15
	ENA, Powerco	The Authority needs to recognise that decisions about interconnection have a material bearing on the best choice for a connection charge.	ENA para 10, Powerco page 1	16
	Fonterra	It is difficult to comment on the DRC-based proposal in isolation from the rest of the TPM.	Para 11	17
Relationship of issues to Part 4 of the Commerce Act	Carter Holt Harvey	The efficiency of connection asset investments is primarily dealt with by the Commerce Commission IPP process. Any change should not hinder the effectiveness of that process. This is a significant consideration.	Page 1	18
	Orion	The question of the best economic approach for charging is a matter best considered by Transpower in conjunction with the Commerce Commission.	Page 3	19
	Transpower	The working paper does not adequately account for regulation applicable under Part 4 of the Commerce Act.	Pages 8-9	20
Other	ENA, MEUG, Vector	The working paper does not sufficiently take into account the complexity/cost of issues/changes.	ENA para 8, MEUG page 2, Vector	21

Issue	Submitter(s)	Submission	Submission ref	Item no
			page 2	
	Transpower	Transpower would like to discuss the matters in its submission further with the Authority.	Page 3	22
	Unison	Unison is concerned that the second issues paper has been delayed to mid-2015. The TPM review feels like a process without end. Given the potentially substantial wealth effects, this creates an undue level of regulator-induced uncertainty. The Authority should carefully consider putting more resources into the project to expedite a timely process.	Page 4	23

PART 2: COMMENTS ABOUT THE STATUS QUO

Issue	Submitter(s)	Submission	Submission ref	Item no
Inefficient shifting of connection costs to interconnection pool: nature of problem	Carter Holt Harvey, Counties Power, ENA, Fonterra, Genesis, Powerco, PwC for 21 EDBs, Trustpower, Unison, Vector	Inefficient shifting of connection costs to the interconnection pool is a theoretical problem and/or the problem is not evident in practice.	CHH page 2, Counties Power, para 2.1, ENA paras 12-15, Fonterra para 10, Genesis page 2, Powerco page 1, PwC for 21 EDBs para 8, Trustpower para 3.1.2, Unison page 1, Vector page 4	24
	ENA, Powerco, Vector	The issue of inefficient shifting is resolvable through contractual means.	ENA para 15, Powerco page 2, Vector page 4	25
	Mighty River Power, Orion	Other factors (fuel resources, engineering issues) drive the location of generation. These factors limit the chance of charges being shifted from connection to interconnection.	MRP page 1, Orion, paras 7-9	26

Issue	Submitter(s)	Submission	Submission ref	Item no
	Meridian	There are incentives to shift assets from connection to interconnection. Support Authority's proposals to consider whether changes to interconnection charge would address this and/or develop a policy regarding classification during commissioning.	Page 1	27
	Powerco	Inefficient shifting is usually inadvertent.	Page 2	28
Inefficient shifting of connection costs to interconnection pool: examples	ENA, Mighty River Power, PwC for 21 EDBs, Transpower, Trustpower, Vector	The example given by the Authority, Project Aqua, is not a good example because it was never built.	ENA para 13, MRP page 2, PwC for 21 EDBs para 8, Transpower page 2, Trustpower para 3.1.2, Vector page 3	29
	Genesis	Genesis's Tokaanu connection was re-categorised from interconnection to connection in 2008. In a separate example, a connection customer proposed a loop configuration but Transpower chose not to accept.	Pages 2-3	30
	Mighty River Power	The fact that Project Aqua did not progress indicates that the incentives the Authority is concerned about are not leading to material inefficiencies.	Page 2	31
	Powerco	The investment to join Hangatiki and Te Awamutu substations would have potentially redefined assets, but the issue was resolved through a contract.	Pages 1-2	32

Issue	Submitter(s)	Submission	Submission ref	Item no
	Transpower	Transpower is only aware of one example where a connection customer made a request for a line to be built between GXPs that would have made that line interconnection assets. That investment was not pursued by Transpower. If the Authority has evidence that this is a problem Transpower would support targeted and proportionate changes to the TPM.	Page 2	33
Inefficient shifting of connection costs to interconnection pool: boundary issues	Carter Holt Harvey	There may be some benefit in clarifying the boundary issue between connection and interconnection assets.	Page 2	34
	MEUG	Some existing boundary issues could be creating inefficient incentives, but it is a matter for a CBA whether a change is required.	Page 2	35
	Orion	Allocative efficiency could be improved through better asset boundaries. This could be progressed by Transpower separate from the TPM review.	Page 2	36
Inefficient shifting of connection costs to interconnection pool during staged commissioning	ENA, Powerco, Transpower, Vector	If during commissioning an asset would be classified as a connection asset temporarily, it should not be considered a connection asset from a pricing point of view – that could lead to a non-optimal commissioning programme and/or the elimination of an efficient construction process.	ENA para 20, Powerco page 2, Transpower page 8, Vector page 5	37
	ENA, Powerco, Vector	It is efficient to commission assets when they are ready rather than defer commissioning until all assets are built.	ENA para 18, Powerco page 2, Vector page	38

Issue	Submitter(s)	Submission	Submission ref	Item no
			5	
	ENA, PwC for 21 EDBs, Vector	This issue would rarely happen.	ENA para 17, PwC for 21 EDBs page 3, Vector page 5	39
	Powerco, PwC for 21 EDBs	This issue should be dealt with by way of exemption applications.	Powerco page 2, PwC for 21 EDBs paras 9-10	40
	ENA	Where there is benefit of bringing forward a portion of an interconnection asset to act as a connection asset, this will be identified during planning. The Commerce Commission process includes consideration of the timing of investments.	Para 19	41
	ENA	Reclassifying an interconnection asset as a connection asset during commissioning has no efficiency benefits.	Para 20	42
	Genesis	If an interconnection asset is configured as a connection asset for a period, charges for the asset should reflect the underlying rationale for the investment.	Page 3	43
	Powerco	It would be rare for staged commissioning to enable EDBs to avoid the need to invest in assets of their own. If that happened, it could be dealt with by contractual means.	Page 2	44
	Transpower	The TPM did not contemplate that interconnection assets may be temporarily classified as connection assets.	Page 8	45

Issue	Submitter(s)	Submission	Submission ref	Item no
	Trustpower	The NAaN exemption shows the system works. Inefficiency was prevented, because Vector and Transpower were denied an exemption. The example does not provide justification for a regulatory change.	Para 3.1.3	46
	Vector	This is a rare event so there may not be a pressing need to change the TPM to address the issue. Vector has applied for a declaratory judgment on the issue, which would override any new policy by the Authority, so there is no need to develop a new policy at this time.	Page 5	47
	Vector	There is no evidence that parties are seeking to inefficiently classify assets as interconnection assets due to ambiguity. In relation to NAaN, the assets in question were always interconnection assets.	Pages 4-5	48
Inefficient shifting of connection costs to interconnection pool: other issues	Genesis	If a connection customer wanted a greater level of security or quality, it may be willing to enter a CIC. However, Genesis relies on Transpower given its experience and the scrutiny Transpower faces.	Page 3	49
	Orion	While Orion had some concerns about the way assets are classified as connection or interconnection, other processes (including engineering concerns) limit the chance of this happening. The resolution of the problem is more likely to come from improvements to the decision-making process. The dynamic efficiency problem is small, but could be enhanced by process changes rather than assets classification changes.	Paras 7-9	50
Stranded assets	Fonterra	There is no current problem with stranded assets.	Page 3	51
	Powerco	Customers that are at a higher risk of stranding are subject to more strict prudential requirements, and any risk regarding those customers is a very small risk.	Page 3	52

Issue	Submitter(s)	Submission	Submission ref	Item no
Cross-subsidies	Mighty River Power, Vector	The correct basis for considering whether a cross-subsidy exists between customers with older assets to those with newer assets is whether some customers are paying below incremental cost.	MRP page 3, Vector page 3	53
	Powerco	There is no material cross-subsidy between connection pool charges for distribution customers, as most EDBs are served by a mix of older and newer assets. If it was an issue, it would only be an issue for direct connection customers.	Page 3	54
	Transpower	It is unlikely that a material long-run cross-subsidy exists between connection asset classes/customers.	Page 5	55
	Transpower	Customers prefer not to bear risk directly. Attempting to replicate portfolio cover through asset-specific policies would be costly.	Page 6	56
	Unison	Cross-subsidisation is not a great concern over the lifetime of an asset because it is likely that customers are paying the full cost of the asset.	Page 2	57
Inefficient investment, including early or more frequent upgrades of assets	Counties Power, Genesis	There are already sufficient checks and balances to manage inefficient investment.	Counties Power page 2, Genesis page 1	58
	Counties Power, Genesis	The Commerce Commission's review of investments is a check on inefficient investment and/or inefficient categorisation of investment.	Counties Power page 2, Genesis page 1-2	59
	Counties Power, Genesis, Mighty River Power	Transpower's control of investment and network decisions is a check on inefficient investment and/or inefficient categorisation of investment.	Counties Power page 2, Genesis pages 1-2,	60

Issue	Submitter(s)	Submission	Submission ref	Item no
			MRP page 1	
	Mighty River Power, Orion, Transpower, Trustpower	There is no evidence that customers have incentives to seek more frequent upgrades or early replacement of assets under the current regime.	MRP page 3, Orion para 16, Transpower para 3, Trustpower para 4.1	61
	Counties Power	Parties seeking new connection investments would have to pay for them through a new investment charge and not the connection charge.	Page 2	62
	Counties Power	The existing rules in the Code, and the Authority's ability to decline a Transpower decision provide efficient checks to manage inefficiency risk.	Para 2.2	63
	Genesis	While Transpower has an incentive to grow its capex, regulations limit this by requiring capex levels to be approved and by requiring Transpower to manage its capex by sharing savings with consumers.	Page 3	64
	Genesis	Connection customers have informal channels to monitor quality and service levels with Transpower.	Pages 1-2	65
	Genesis	Connection customers have an incentive to minimise their costs to connect. This is a constraint on Transpower.	Page 3	66
	Transpower	The requirements in the capex IM and IPP, along with expenditure allowances and quality standards, provide Transpower with powerful motivations to avoid unnecessary expenditure. The overall incentive is to invest in connection assets that are efficient to meet the GRS	Pages 3, 9	67

Issue	Submitter(s)	Submission	Submission ref	Item no
		(no more, no less). However, full incentives will operate together for the first time in RCP2 and are not generally well-understood.		
	Transpower	There is no current problem with premature replacement of assets. Firms have incentives under Part 4 not to overestimate demand. Customers have consistently opted not to build connection assets even in cases in which Transpower enjoys no competitive advantage.	Pages 3-5, 9	68
General/other	Contact, Counties Power, ENA, Fonterra, Mighty River Power, Orion, Pioneer Generation, Transpower, Vector	There is no material problem with the status quo/support current structure for connection charges/the current structure is efficient.	Contact page 1, Counties Power page 5, ENA para 12, Fonterra para 10, MRP page 1, Orion para 4, Pioneer page 1, Transpower pages 1 and 9, Vector page 3	69

Issue	Submitter(s)	Submission	Submission ref	Item no
	Contact	The current framework is stable and well understood. The benefits of current connection charge framework include: • smoothed price profile; • de facto insurance against asset failure; • service based charge; • protection from significant localised price shocks.	Page 1	70
	Mighty River Power	The fact that there were low levels of responses regarding connection charges in relation to the original TPM proposal shows that the existing arrangements are sufficient to manage any issues should they arise.	Page 2	71
	Orion	None of the three issues discussed in the working paper are very important, especially in light of the much more radical aspects of the Authority's proposals. Transpower could address two of the issues without further input from the Authority, and the third issue is particularly minor.	Page 1	72
	Transpower	The existing connection charge framework is compatible with the investment and incentive regulation under Part 4 of the Commerce Act.	Page 1	73
	Transpower	The current framework is complementary to the Part 4 framework, as it supports Transpower's fleet strategies and investment plans and Transpower's ability to meet a GRS. It provides customers with choice while allowing Transpower to optimise effectively across the network.	Page 2	74

Issue	Submitter(s)	Submission	Submission ref	Item no
	Transpower	Do not agree that: • customers have incentives to overstate their needs • Transpower has incentives inability to blithely accept those needs as GRS issues • checks and balances under Part 4 do not work • there is pent-up demand to build connection assets that is being hindered by the TPM • the Authority's proposed changes would address these problems.	Page 2-3	75
	Transpower	Two possible issues with the current connection charges regime are the impact of the four-yearly averaging of maintenance costs (which Transpower is planning to address as part of its TPM review) and the treatment of assets that will eventually be interconnection assets as connection assets (e.g. NAaN).	Pages 2-3	76
	Transpower	In relation to possible problems with competition, Transpower works with customers to determine investments. For larger customers, it makes sense for them to own connection assets. For smaller customers, Transpower manages the assets. A number of customers are replacing connection assets that Transpower presently owns because they are best placed to own the asset. Transpower is working on this matter with the Commerce Commission in the context of the DPP reset.	Pages 6-7	77
	Transpower	The revenue requirement is allocated to consumers based on replacement cost. By pooling connection assets, the equivalent price is smoothed over the lifetime of the asset, without customers	Page 5	78

Issue	Submitter(s)	Submission	Submission ref	Item no
		incurring additional finance costs to defer cash flows.		

PART 3: COMMENTS ON DRC-BASED CHARGES

	Submitter(s)	Submission	Submission ref	Item no
Support/do not support	Mighty River Power, Orion, Powerco, Vector	Do not support the DRC-based charging approach.	MRP page 2, Orion para 10, Powerco page 2, Vector page 3	79
	Meridian	Support shift to DRC-based charging, subject to CBA.	Page 1	80
General comments on depreciation-based charging	Carter Holt Harvey, ENA, Mighty River Power, Orion, Powerco, PwC for 21 EDBs, Transpower, Trustpower, Unison, Vector	Charges to the consumer should be related to primarily to service, not age. Asset service levels do not vary considerably over the life of the asset. This is consistent with flat pricing.	CHH, page 2, ENA paras 21-22, MRP page 2, Orion para 13, Powerco page 2, PwC for 21 EDBs paras 19-21, Transpower page 7, Trustpower para 2.1.2, Unison page 2, Vector pages 2-3	81
	Pioneer Generation,	An average change for capital intensive assets is common (for example, a person will pay the same price for a rental car no matter	Pioneer page 1,	82

	Submitter(s)	Submission	Submission ref	Item no
	Transpower	how old).	Transpower page 7	
	ENA	The Authority has not provided examples of workably competitive markets where prices exhibit a saw-tooth profile based on the age of a plant used to deliver a service.	Para 22	83
	Orion	The example of bank fees is not a good example. Better examples include those in which the price is the same irrespective of age of the asset used to provide it, e.g. fares for aeroplanes, buses, taxis and trains. The working paper confuses how parties pay for services and how they make decisions about investments. The two are not necessarily related.	Para 12	84
	Transpower	The Authority has used false analogies, using consumer goods that have desirable characteristics/short-term utility as an analogy for functional long-lived assets. It may be preferable to drive a new Toyota Corolla, but the same is not true in relation to switchyards.	Page 4	85
Would DRC-based charging lead to efficiency?	ENA, Vector	DRC-based charging would not lead to dynamic efficiency.	ENA para 24, Vector page 3	86
	Genesis, Vector	DRC-based charging would not lead to efficiency.	Genesis page 4, Vector page 3	87
	Meridian	DRC-based charging would lead to efficiency and better investment.	Page 2	88

	Submitter(s)	Submission	Submission ref	Item no
	Mighty River Power	The most efficient basis for charging assets would be on a marginal cost basis, but this would not be pragmatic given the large volume of connection assets. Hence the preference for averaging.	Page 2	89
	Orion	If the fleet is big enough, a customer with a representative fleet will see flat charges overall.	Para 13	90
	PwC for 21 EDBs	DRC-based charging may lead to efficiency from transparency and greater scrutiny, but also decreased inefficiency arising from volatility.	Para 13	91
	Vector	DRC-based charging would not lead to allocative efficiency.	Page 3	92
	Vector	Under the DRC-based charging proposal, prices would be high when an asset is new and low when it is old. As utilisation of assets often increases over time, this may not be efficient.	Page 3	93
	Vector	DRC-based charging would not be an optimal way to charge for connection assets, as it would not reflect long-run or short-run marginal cost.	Page 2	94
DRC-based charging may make it difficult to replace assets efficiently	Carter Holt Harvey, Trustpower	Transpower's fleet management strategy is efficient.	CHH page 2, Trustpower para 2.1.3-2.1.6	95
	ENA, Powerco, Transpower, Trustpower	The application of the DRC-based charging method in the 1990s led to reluctance from consumers to replace assets, delaying investment.	ENA, para 24, Powerco page 3, Transpower page 7 Trustpower	96

	Submitter(s)	Submission	Submission ref	Item no
			para 2.1.5	
	Orion, Powerco, Transpower, Trustpower, Unison	DRC-based charging could lead to customers being reluctant to replace assets, delaying necessary investments.	Orion para 17, Powerco page 3, PwC para 17, Transpower page 7 Trustpower paras 2.1.3-2.1.6, Unison page 2	97
	Powerco, Transpower, Trustpower	Delays in investment under DRC-based charging could affect Transpower's ability to apply its fleet strategy.	Powerco page 3, Transpower pages 7-8, Trustpower 2.1.3-2.1.6	98
	Carter Holt Harvey	Carter Holt Harvey has had sufficient opportunity to comment and contribute in relation to replacement of assets under the current framework.	Page 2	99
	Carter Holt Harvey	Replacing investments causes disruption and operating losses, so judgement is required to replace plant and equipment before it is "too late".	Page 2	100
	Meridian	There may be practical difficulties in agreeing the timing of replacement assets.	Page 2	101
	Orion	DRC-based charging could lead to distributors delaying Transpower	Para 17	102

	Submitter(s)	Submission	Submission ref	Item no
		replacement works. This could have safety risks and increase costs through poor reliability outcomes.		
	Orion	Investment is based on the NPV of the net benefits over the lifetime of the investment, not depreciation.	Para 27	103
	Orion	The timing and structure of payment arrangements will not change investment decisions, which are generally driven by other factors such as engineering.	Para 28	104
	Orion	Accepts Transpower's fleet approach.	Para 10	105
	Orion	When connection is seen as a service provided by a fleet of assets the issue of cross-subsidies disappears.	Paras 14-15	106
	PwC for 21 EDBs	Distributors will be incentivised to rely on connection assets when these are older (when connection charges are low) but to invest in their own distribution assets when transmission assets are new (when charges are high). Decisions about investment should be based on the efficiency of investment over its useful life, not on the profile of transmission assets.	Page 4	107
	Transpower	The introduction of revenue-linked grid output measures from RCP2 assume that Transpower will be able to deliver investment plans and does not make provision for price-shock induced customer hold out.	Page 9	108
	Trustpower	Fleet upgrades can increase efficiency by considering whole of life costs, establishing predictable replacement schedules, and providing fleet managers with the ability to negotiate discounts using economies of scale.	Paras 2.1.3-2.1.6	109

	Submitter(s)	Submission	Submission ref	Item no
Volatility, unpredictability	Genesis, Mighty River Power, PwC for 21 EDBs, Transpower, Vector	DRC-based charging would lead to unnecessary and/or undesirable volatility or price shocks.	Genesis page 4, MRP page 3, PwC for 21 EDBs para 13, Transpower page 7, Vector page 2	110
	Unison, Vector	End use customers would not like varied charges.	Unison page 2, Vector page 2	111
	Genesis	DRC-based charging would lead to unpredictable charges.	Page 4	112
	Mighty River Power	Volatility was one reason why there was a return to average charging in the 1990s.	Page 3	113
	PwC for 21 EDBs	Volatility could lead to inefficient investment and transition costs.	Para 13	114
	Trustpower	If charges were variable under a DRC-based charge, this would not be desirable. It would be difficult to explain to customers and would not increase customers' confidence in their charges. As a retailer, Trustpower values certainty.	Para 4.1.3	115
DRC-based charges would inefficiently incentivise distributed	Pioneer Generation, PwC for 21 EDBs	There may be a bias toward distributed/embedded generation, leading to market inefficiencies.	Pioneer page 1, PwC for 21 EDBs para 17	116
	Pioneer	Concerned that the Authority's proposals could lead to inefficient	Page 1	117

	Submitter(s)	Submission	Submission ref	Item no
generation	Generation	embedded generation. This could crowd out existing small-scale embedded generation, imposing interconnection costs on small-scale embedded generation.		
Would not improve scrutiny of investments	Genesis	Customers are unlikely to better scrutinise categorisation and classification of assets.	Page 5	118
	Mighty River Power	There will not be greater scrutiny of assets because the NPV impact of either charging arrangement is likely to be similar.	Page 3	119
	Unison	Changing the profile of charges over time would not impact Unison's incentives to engage with Transpower, given the level of receptiveness of Transpower to discuss replacement of assets.	Pages 2-3	120
	Vector	Because the Commerce Commission scrutinises GRS investments, scrutiny by consumers may not materially affect the Commission's decision making.	Page 3	121
Competition	Genesis	Practical barriers to other parties developing connection assets are minor and result from a valued feature of ARC, which is stable charges. ARC-based charges do not reduce the ability of other parties to compete with Transpower to a significant extent.	Page 5, Appendix A	122
	Powerco	It is not reasonable to expect EDBs to opportunistically complete with Transpower to replace or upgrade connection assets. The proposal suggests a misunderstanding by the Authority of how regulated EDBs fund significant capital expenditure.	Pages 2-3	123

	Submitter(s)	Submission	Submission ref	Item no
Current de facto insurance under current regime is desirable	Powerco	Transpower financing a flattened charge is more cost-effective than customers financing it themselves.	Pages 3-4	124
	Trustpower	The ARC-based charge provides an insurance effect that allows charges to be predicted and claimed for. This allows for greater efficiency.	Para 4.1.2	125
Transition issues	ENA, PwC for 21 EDBs, Transpower, Unison	The Authority has not considered how transition would be managed. For example, connected customers that have older assets might receive a significant subsidy.	ENA para 25, PwC for 21 EDBs paras 24-27, Transpower page 8, Unison page 2	126
	Transpower	If the Authority goes ahead with the change, it should take into account the difference between actual past depreciation payments and payments that would have been made under the revised method.	Page 8	127
Spur line assets	Orion	The acquisition of spur assets has a positive business case for Orion and also benefits consumers overall.	Para 29	128
	PwC for 21 EDBs	The ARC-based approach is disincentivising distributors from purchasing spur line assets from Transpower under the input methodologies, where connection charges do not reflect the costs of owning the assets. A move towards DRC-based charges could help alleviate these problems. However, transition issues would need to be taken into account as part of the review.	Paras 31-33	129

	Submitter(s)	Submission	Submission ref	Item no
Comparison with customer investment contracts	ENA	Customer investment contracts (CICs) have a flat profile.	Para 22	130
	Powerco	CICs have a flat profile, which indicates the utility of flattened charges.	Page 4	131
	PwC for 21 EDBs	CICs have a flat profile, which indicates a preference for price stability.	Para 22	132
Other	Counties Power	The benefits of DRC-based charging are largely academic, because a company seeking a new grid investment would need to do so through a new investment charge. The new investment charge is a DRC-based charge that has all the signals that the Authority is seeking in the DRC-based charge. For Transpower initiated investments, if these investments occurred in the private sector, the end consumer would not expect to pay a DRC-based charge, because the service would not have been requested by the consumer.	Para 3	133
	ENA	*The Economics of Regulation* (Kahn) suggests that the gross cost of capital should be recovered by a flat charge, and an equal amount per unit of sales, or in a way that fluctuates with a business cycle. Kahn argues that the second is preferable as it provides stability.	Para 23	134
	Genesis	Moving to a DRC-based charge would not reduce the probability of asset stranding, as Transpower forms a view on the best scenarios based on the best information it is able to obtain.	Appendix A	135
	Nova	A DRC-based charge would be more transparent to users.	Page 1	136

	Submitter(s)	Submission	Submission ref	Item no
	Nova	Favour a move to a DRC-based charge for generators and major electricity users. However, for distribution networks, an ARC-based charge is more appropriate. The differences in charges between networks is already greater than desirable, and a DRC-based charge would lead to greater variation in costs and significant changes over time. Variations in connection charges are unlikely to lead to different economic decisions with each network. The GRS is the same for all networks, and there is less incentive for distribution companies to engage with Transpower on decisions about replacement of assets. Any cross-subsidisation that would occur by retaining the ARC-based charge for distribution would be socialised across a wide range of users, whereas generators and major users should be directly accountable for the costs of the grid.	Page 1	137
	Powerco	No assets are depreciated by more than 100%. There is no problem with the current approach. Charges apply because the service is continuing to be provided, regardless of whether an asset is fully financially depreciated.	Page 3	138
	PwC for 21 EDBs	Inconsistency between DRC-based charging for most connection assets and ARC-based charging for most CIC contracts could impact investment decisions in relation to GRS assets.	Paras 22-23	139
	PwC for 21 EDBs	An annuity payment approach may avoid price volatility, but it is likely to be incompatible with Transpower's regulated price path. Indexing Transpower's asset base using a price inflator would allow prices to be set based on DRC. Both options result in less price volatility but would require changes to Transpower's IMs and IPP under Part 4 of the Commerce Act.	Paras 29-30, 40	140

	Submitter(s)	Submission	Submission ref	Item no
	Transpower	The Authority has characterised features of DRC-based charging as benefits when they are problems.	Page 7	141
	Vector	The problems identified with ARC-based charging are only potential problems. Regulation should not be introduced for problems that may only exist in theory. For regulation to be justified, material problems must really exist and proposed solutions must deliver net benefits.	Page 2	142
	Vector	DRC-based charging is likely to increase administration costs.	Page 3	143

PART 4: COMMENTS ON ACTUAL ALLOCATION OF OPERATING AND MAINTENANCE COSTS

Position	Submitter(s)	Submission	Submission ref	Item no
Expressions of support and opposition	Powerco, PwC for 21 EDBs	Support status quo.	Powerco page 4, PwC for 21 EDBs para 38	144
	Meridian	Support the Authority's proposal to charge operating and maintenance costs based on actual costs rather than cost allocators.	Meridian page 2	145
Efficiency considerations	ENA, Powerco	The proposal would not lead to net efficiency benefits.	ENA para 27, Powerco page 4	146
	Carter Holt Harvey	There may be some cost efficiencies in incentivising Transpower to allocate costs realistically.	Page 3	147
	Counties Power	Because of difficulties in attributing actions to connection maintenance costs, the Authority's proposal will not result in efficiency gains.	Para 4	148
	Genesis	Genesis supports charging based on actual costs, but does not consider that it would necessarily increase efficiency in this case.	Page 5	149
	Meridian	The proposals would provide parties with appropriate incentives in relation to: • trade-offs between options • timing of renewals • making decisions to contract with Transpower or others • assessing maintenance and repairs.	Page 1	150

Position	Submitter(s)	Submission	Submission ref	Item no
	PwC for 21 EDBs	The current cost allocation approach is already consistent with the principle that costs should be directly allocated where possible, and allocated using cost allocators where this is not possible.	Paras 34-39	151
Ability of customers to scrutinise operating and maintenance costs	ENA	There would be no marked efficiency benefit in changing the way operational and maintenance costs are allocated, as Transpower's customers do not have the ability to monitor or scrutinise Transpower's maintenance practices.	Para 27	152
Variability	ENA	Connection assets are used to deliver a connection service which is of stable economic value.	Para 27	153
	Powerco	While it may be possible to identify actual maintenance charges for particular assets, this would result in variation, with the variation providing no particular utility to customers.	Page 4	154
	Powerco	The four-year averaging for substation maintenance costs is reasonable and avoids undesirably cyclical variations. Any benefits from allocating substation maintenance costs directly would be negligible and unlikely to exceed the administrative costs.	Page 4	155
	PwC for 21 EDBs	Do not support direct application of maintenance costs, as it would lead to undesirable variability. Open to alternative approaches that might reflect actual costs, subject to concerns about price stability.	Paras 37-39	156
Effect of averaging	ENA	Not clear how more precise cost allocation would affect decisions, as prices are usually averaged by intermediaries. The averaging further reduces the possibility for any benefit from pricing, even if it were accepted that benefits were possible.	Para 28	157

Position	Submitter(s)	Submission	Submission ref	Item no
Other comments	Counties Power	The proposal to charge actual operating expenses will only be efficient if the change occurs in conjunction with DRC-based connection charges, otherwise, customers would pay higher maintenance costs for an older asset, without the lower corresponding connection charges.	Para 4	158
	Counties Power	There are problems with the Authority's car analogy. There is often more than one customer using the same connection asset. There are also difficulties in attributing actions resulting in long-term higher maintenance of the substation.	Page 3	159
	Genesis	The Authority could consider coupling cost-based charges with DRC-based charges, but there are a number of unresolved DRC issues that make this unattractive. A cost-based approach could be applied without DRC, but this is not optimal and will not necessarily lead to efficiency. That is because customer asset demands are driven by other factors.	Page 5	160
	Unison	The current approach of averaging operating costs may be simpler but Transpower may be able to undertake a more detailed allocation of operating costs. There are likely to be compliance costs associated with changing the method by which operating costs are calculated, which would need to be passed through to the consumer. While Unison is not averse to allocating costs to assets specifically, it is concerned that it does not face a situation where it has paid average charges to date but ends up with old assets at the end of their life that require increased maintenance. Transitional arrangements would be needed if this was the case.	Pages 3-4	161

Position	Submitter(s)	Submission	Submission ref	Item no
	Vector	The Authority may have underestimated the costs associated with allocating operating expenses on an actual basis. These are likely to be substantial. Benefits of approach may not be noticeable.	Page 3	162

PART 5: GENERAL/OTHER COMMENTS ABOUT THE PROPOSALS

Submitter(s)	Submission	Submission ref	Item no
ENA, Genesis	The proposals would not lead to material improvements in achieving the Authority's key objectives/would not lead to efficiency/would likely lead to net costs for consumers.	ENA para 12, Genesis Appendix A	163
Carter Holt Harvey	There is insufficient data to enable us to arrive at a view about whether material efficiency improvements are possible.	Page 1	164
Fonterra	If there will be more submissions on proposed investments, will there be impacts on the outcome of Transpower's decisions and will the Commerce Commission regime change to accommodate this?	Para 12.1	165
Fonterra	Increased scrutiny of Transpower's proposed investments will only affect future investments, and these will be minimal.	Para 12.2	166
Fonterra	Any change should no impose short-term disincentives on customers, which can put the viability of customers at risk.	Para 12.3	167
Genesis	Connection charges make up less than 1.5% of electricity charges. Given this, the Authority should prioritise its efforts on components of the TPM that have the potential to provide material benefits.	Page 6	168
MEUG	Transpower's answers to our questions bring up a new question about whether the WACC should be higher or lower. This may be relevant to EDB bespoke contracts for customer specific services.	Page 2	169
Orion	CICs are effectively organised as finance leases. This causes uncertainty about what happens when assets paid for under a CIC are replaced. CICs create incentives for the status quo. The more new assets are placed in CICS, the older the remaining asset pool becomes. CICs are not an example of a market-based approach. The Authority needs to consider more regulation for CICs.	Pages 4-5	170

Submitter(s)	Submission	Submission ref	Item no
Pioneer Generation	Concerned that the proposals would create further complexity.	Page 1	171
Pioneer Generation	Concerned that the proposals would lead to a step change in electricity prices for some consumers.	Page 1	172
Pioneer Generation	Proposals may be superfluous if improved targeting of the interconnection charge addresses the Authority's perceived inefficient incentives in the connection charge.	Page 1	173
Transpower	Concerned that the working paper has not fully captured how the full suite of incentives are designed and their effects.	Page 3	174
Transpower	Uneasy that proposals could be an impediment to objectives under Part 4 of the Commerce Act.	Page 9	175
Trustpower	The increased time spent on dispute resolution could decrease efficiency. It would put the Authority in the position of a second transmission investment regulator, which is counter to the intent of the reforms that led to its creation. The Commerce Commission already regulates asset replacements.	Para 2.1.1	176