



Attachment B Proposed TPM Guidelines: Clause-by-clause Commentary

- For each clause we provide comment directly against each clause where relevant.
- For clauses 17, 18, 25, 26, 32(b) and (to the extent it applies to benefit-based charges) 42, we propose redrafts under clauses XA, XB and XC following the table.

Proposed TPM Guidelines – 2019 Issues Paper	Transpower comment:
<i>Policy objectives</i>	<p>This section of the guidelines is descriptive of the charges rather than illuminative of any over-riding policy objectives. It is also unclear whether this section is intended to be an operative part of the guidelines (for example, it is not referred to in clause 3).</p> <p>This section does not help with interpreting anything later in the guidelines, and contains some inconsistencies with the later requirements. We think this section should be deleted.</p>
<p>The Electricity Authority (the Authority) has reviewed the guidelines which Transpower is required by the Electricity Industry Participation Code 2010 (the Code) to follow in developing a proposed transmission pricing methodology (proposed TPM) (the Guidelines).</p> <p>Having undertaken this review, the Authority considers that, in order to allow Transpower to recover up to its forecast maximum allowable revenue in any year and to better meet the Authority's statutory objective, the proposed TPM should contain the following components:</p> <ul style="list-style-type: none">(a) a connection charge;(b) a benefit-based charge;(c) a residual charge;(d) a prudent discount policy;(e) a cap on transmission charges; and	<p>See our comment on clause 54 about the additional components being discretionary rather than mandatory (which is relevant to the words "are to" in subclause (f)).</p>



(f) seven additional components which are to be implemented if they better achieve the Authority's objective.	
<i>Connection charge</i> The purpose of the connection charge is to charge each designated transmission customer to recover the cost of the assets that connect it to the interconnected grid.	
<i>Benefit-based charge</i> The purpose of the benefit-based charge is to recover the costs of new and certain existing investments in the interconnected grid (including investments in transmission alternatives). The charge is to be allocated between designated transmission customers in accordance with the estimated positive net private benefits that each transmission customer is expected to receive from the investment (or a proxy for these benefits). The positive net private benefit of the transmission customer includes the positive net private benefit of any parties that are connected to the interconnected grid through the transmission customer.	
<i>Residual charge</i> The purpose of the residual charge is to provide a mechanism to ensure that Transpower is able to recover up to its forecast maximum allowable revenue in any year in a way which does not affect designated transmission customers' decision-making.	<p>The RCP3 IPP will smooth Transpower's revenue over the five years of the regulatory period. Our annual revenue cap will be smoothed maximum allowable revenue (SMAR) rather than maximum allowable revenue (MAR). We have suggested a new defined term of "maximum revenue" to deal with this and provide flexibility for RCP4 and beyond (see clause 66).</p> <p>We suggest that all references in the guidelines to "forecast MAR" be replaced with "maximum revenue".</p> <p>The residual charge is not 100% incentive-free. Whether or not the residual charge affects customers' decision-making remains to be seen. The words "does not affect" should be replaced with "is designed to not affect".</p>



<p><i>Prudent discount policy</i></p> <p>The purpose of the prudent discount policy is to allow Transpower to discount the transmission charges of a designated transmission customer who otherwise would find it viable to inefficiently bypass the grid (including inefficiently disconnecting from the grid in favour of alternative supply).</p>	
<p><i>Cap on transmission charges</i></p> <p>The purpose of the cap on certain transmission charges is to minimise price shock by limiting the total increase in transmission charges relating to the existing interconnected grid that each load customer faces relative to the charges that the customer actually pays for the existing interconnected grid in the 2019/20 pricing year. The cap applies only as long as it is effective in limiting a designated transmission customer's transmission charges subject to the price cap as set out in clause 49.</p>	<p>In our view, the policy objectives section (if retained) should not refer to the detailed rules later on in the guidelines. The words "as set out in clause 49" should be deleted.</p>
<p><i>Additional components</i></p> <p>Transpower would include each additional component in the TPM if doing so would better achieve the Authority's statutory objective.</p>	<p>See our comment on clause 54 about the additional components being discretionary rather than mandatory.</p> <p>There is inconsistent wording in the guidelines as to the threshold for Transpower including additional components. In this clause the threshold is "would better achieve", which is an objective threshold. In clause 54 the threshold is "would, in Transpower's reasonable opinion, better meet", which is a subjective threshold. In the definition of "additional component" in clause 66 there is a different subjective threshold, namely "where Transpower considers...will better meet". These thresholds should be consistent, and in our view should be "Transpower considers".</p>
<p>(a) Staged commissioning. The purpose of this component is to allow Transpower to adjust how it recovers the cost of an investment that is commissioned in stages, so the charges better reflect the positive net private benefits it provides.</p>	<p>In our view this additional component should be deleted. See our comment on clause 55.</p>



(b)	Assets that in substance provide connection services. The purpose of this component is to ensure that if a connection asset that continues in substance to provide principally connection services is reclassified as an investment in the interconnected grid, it is still charged for as a connection asset.	We do not agree with how this additional component is worded. See our comment on clause 56.
(c)	Charges for connection assets. The purpose of this component is to allocate connection charges in substantially the same way as benefit-based charges.	In our view this additional component should be deleted. See our comment on clause 57.
(d)	Transitional peak charge. The purpose of this component is to efficiently influence grid use at peak times for a limited transitional period, if nodal prices are not adequate to meet this objective.	<p>The test in this subclause only refers to nodal prices, whereas the test in clause 59 refers to "other prices including nodal pricing". Both are inconsistent with the definition of "peak charge" in clause 66, which refers to "nodal prices and the other transmission charges".</p> <p>In this clause and clause 59 the threshold is that nodal prices are "not adequate" to influence grid use at peak times. In our view that threshold is slanted unduly against a peak charge. The test for whether a peak charge should be retained, permanently or under transitional arrangements, should be expressed in neutral terms focussing on whether the peak charge would deliver benefits, not on the relative efficacy of the peak charge versus nodal prices.</p> <p>See also our comments on clauses 58 to 61.</p>
(e)	Extension of benefit-based charge. The purpose of this component is to allow Transpower to extend the benefit-based charge to further pre-2019 investments.	
(f)	Opex. The purpose of this component is to attribute opex to the investment or asset that it is spent on without recourse to proxies.	The use of the word "investment" in the guidelines is confusing. Sometimes it refers to a project and sometimes it refers to an asset (i.e. the output of a project). In this paragraph it is unclear exactly how or why the "investment" is being distinguished from the "asset". See our comment on clause 12.



- (g) kvar charge. The purpose of this component is to allow Transpower to impose a charge on reactive power.

General matters	
1.	In developing the TPM in accordance with these Guidelines , <u>Transpower</u> must, as far as reasonably practicable:
	<p>(a) set charges in a way that reflects:</p> <p>(b) the cost of providing designated transmission customers with:</p> <p style="margin-left: 40px;">A. new investment in the <u>grid</u>;</p> <p style="margin-left: 40px;">B. access to the parts of the <u>grid</u> relevant to them; and</p> <p style="margin-left: 40px;">C. use of the <u>grid</u> to transport energy;</p> <p style="margin-left: 40px;">(ii) the positive net private benefits those <u>designated transmission customers</u> derive from those things;</p>
	<p>There is something wrong with the subclause nesting here. We think subclause (b) should be subclause (i).</p> <p>Even with that change subclause (a)/(b) is confusing. It is not clear how or if this subclause allows us to depart from the requirements later in the guidelines on reasonable practicability (workability) grounds. We suggest subclause (b) be deleted and the concept of reasonable practicability departures be incorporated in clause 2. See our proposed alternative drafting below for clause 2.</p> <p>We note that while these subclauses provide that charges should be set on the basis of cost, they also require that charges be set on the basis of benefit. These are competing and potentially contradictory concepts. The cost of providing a service is not the same as the benefit (or benefit share) a customer receives from the service.</p> <p>“Designated transmission customer” is a Code-defined term but is not underlined in subclause (b). The guidelines need to be checked for appropriate underlining and bolding of defined terms, as there are some other examples of this.</p>
	<p>(c) balance the economic benefits and costs of precision of the TPM with the economic benefits and costs of practical considerations including:</p>
	<p>This subclause implies a formal cost-benefit balancing exercise, which we will not necessarily carry out. The introductory wording should be “Take into account practical considerations including:”.</p>



	<ul style="list-style-type: none">(i) robustness;(ii) simplicity;(iii) certainty, including through limiting the need for Transpower to exercise a discretion; and(iv) costs associated with developing, administering and complying with the TPM;	
	(d) avoid creating incentives for existing and potential <u>designated transmission customers</u> to avoid transmission charges in ways that cause economic inefficiency;	In our view this clause should be deleted. See our comment on clause 42(c). We note that if the guidelines contain efficient charges and efficient pricing signals then incentives to avoid those charges will enhance efficiency rather than cause inefficiency. In that sense this clause assumes the design of the charges is inefficient in some way and needs to be mitigated.
	(e) avoid creating incentives for <u>distributed generators</u> to seek avoided cost of transmission payments, except to the extent that the payments reflect a saving in the costs of transmission (not just a saving in transmission charges to the relevant <u>distributor</u>);	This is a matter for Part 6 of the Code, not for the TPM or guidelines. We note that the Authority has proposed a Code amendment to address this.
	(f) avoid discriminating between <u>designated transmission customers</u> , except to the extent necessary to achieve the <u>Authority's</u> statutory objective; and	The words "necessary to achieve the Authority's statutory objective" should be "allowed by these Guidelines". The guidelines contain many ways in which we are required to discriminate between our customers, which may or may not be justified by the statutory objective. For example, the benefit-based charge requires that if one customer receives greater benefits than another for the same service, even if they both cost the same to supply, the former customer should be charged more.
	(g) allow <u>Transpower</u> to recover its forecast MAR , should it wish to do so.	



2.	<p><u>Transpower</u> may propose a TPM which differs in its details from the particular requirements in the Guidelines, if it considers, in its reasonable opinion, that doing so would better meet the <u>Authority's</u> statutory objective than complying with the Guidelines in their entirety.</p>	<p>The words "details" and "particular requirements" introduce uncertainty as to how far our discretion goes. These qualifiers should be removed. Our proposed alternative drafting is below, and would also replace clause 1(a)/(b) as per our comment on that clause above. This redrafting would require consequential changes to clause 4(a).</p> <p><i>2. The TPM may differ from any requirement in these Guidelines to the extent <u>Transpower</u> considers:</i></p> <p><i>(a) it would better meet the <u>Authority's</u> statutory objective for the TPM to differ from the requirement than to comply with it; or</i></p> <p><i>(b) it would not be reasonably practicable for <u>Transpower</u> to comply with the requirement.</i></p> <p>As with the threshold for incorporating the additional components, there is inconsistent wording in the guidelines as to the threshold for Transpower departing from the guidelines. In this clause the threshold is "considers, in its reasonable opinion...would better meet". In clause 15(b) the threshold is "would better meet". In clause 40(b) the threshold is "consider...would better meet". In clause 60(b) the threshold is "would, in Transpower's reasonable opinion, better meet". These thresholds should be consistent, and in our view should be "Transpower considers".</p> <p>There is also inconsistent use of "the Guidelines" versus "these Guidelines" in this clause and elsewhere.</p>
3.	<p>All subsequent provisions in these Guidelines are to be interpreted and applied subject to clauses 1 and 2 above.</p>	
4.	<p>In developing the TPM, <u>Transpower</u> must prepare an outline of <u>Transpower's</u> reasons for proposing the particular methods it has included in the TPM, to be provided to the <u>Authority</u> along with the TPM. This outline must include details of:</p>	<p>Clause 4 is not a guideline for the TPM. It would be more appropriate to cover this outside the guidelines as a process requirement.</p>



	(a) where, under clause 2, <u>Transpower</u> proposes a TPM which differs in its details from the particular requirements of the Guidelines, how the TPM differs from the Guidelines and <u>Transpower's</u> reasons for proposing a TPM which differs from the Guidelines , including why it considers that its proposed TPM better meets the <u>Authority's</u> statutory objective; and	
	(b) where Transpower has made an assumption in developing the TPM , the assumption made and Transpower's reasons for making that assumption.	This requirement should be limited to <i>material</i> assumptions. Same for clause 5(e), if retained.
5.	The TPM must include requirements for <u>Transpower</u> to consult on: (a) the proposed benefit-based charge and its allocation between <u>designated transmission customers</u> for each proposed high-value benefit-based investment ; (b) the proposed allocation of the residual charge ;	
	(c) important parameters used to calculate those charges and allocations;	This requirement is unnecessary as the important parameters (and assumptions referred to in subclause (e)) will naturally be part of the benefit-based and residual charge consultations.
	(d) any proposed material changes to those charges or allocations (in which case consultation must extend to whether such changes are warranted by a change in circumstances); and	We should not have to consult on a change to the total residual charge as it is a wash-up. "Change in circumstances" is odd wording because that is not a threshold in the guidelines for reopening the charges. In our view the words in brackets are unnecessary.
	(e) any assumptions made in calculating those charges, allocations or material changes to those charges or allocations,	See our comments on subclause (c) and clause 4(b).
	with parties who have a material financial interest in the charges. Where <u>Transpower</u> can demonstrate that such parties have already	



	been consulted on the above (whether by <u>Transpower</u> or any other party), it need not repeat that consultation for the purposes of this clause.	
6.	The TPM must include a requirement for <u>Transpower</u> to provide each <u>designated transmission customer</u> with information regarding how its transmission charges have been calculated, including the basis on which its benefit-based charge and residual charge have been set. The basis on which the residual charge has been set includes the extent to which the residual charge comprises unallocated opex and the extent to which it comprises costs which have been reallocated to the residual charge as a result of benefit-based investments having been subject to reassignment . Information provided for the purposes of this clause should be sufficient to enable the <u>designated transmission customer</u> to verify the accuracy of <u>Transpower's</u> calculations of its transmission charges .	<p>Clause 6 is not a guideline for the TPM. It would be more appropriate to cover this outside the guidelines, perhaps as a change to clause 41 of the benchmark agreement/transmission agreements.</p> <p>It is not stated how often we are required to provide the information. Is it annually?</p> <p>The requirement in the final sentence of this clause is too high a standard and should be deleted. The information we provide will not necessarily allow for a complete independent recalculation of transmission charges.</p>
7.	The TPM must provide that, where it is necessary to consider the characteristics of, benefits or costs accruing to, or incentives on, a <u>designated transmission customer</u> under the TPM , that assessment must also consider the characteristics of, benefits or costs accruing to, or incentives on any parties directly or indirectly <u>electrically connected</u> to that <u>designated transmission customer</u> .	Parties are not electrically connected to designated transmission customers, rather it is their respective plant that is connected.
8.	The TPM must provide for the treatment of a <u>transmission alternative</u> to be consistent with the treatment the investment which the <u>transmission alternative</u> seeks to avoid would have received under these Guidelines or, where this is not reasonably practicable, for the cost of <u>transmission alternatives</u> to be allocated to the <u>designated transmission customers</u> that benefit from them in proportion to the relative level of benefit that each customer receives.	The last part of this clause (from "or") is unnecessary. In any event, the reference to "benefit" should be "positive net private benefit".



	Main components	
9.	<p>The TPM must include:</p> <ol style="list-style-type: none">1. a charge for connection assets;2. a benefit-based charge;3. a residual charge;4. a prudent discount policy; and5. a cap on specified transmission charges. <p>The total recovered by <u>Transpower</u> under these components may not exceed <u>Transpower's</u> forecast MAR.</p>	<p>The fifth item in this list is incomplete because, as proposed, the cap will only last for a limited period.</p> <p>In the last sentence "total" should be "total revenue".</p>

	Main component 1: connection charge	
10.	The TPM must provide for the costs of connection assets to be recovered from those connected to them.	
11.	The TPM must include a definition of deep connection, which must be applied consistently and transparently. The definition of deep connection must avoid subsidisation of interconnection assets to the extent reasonably practicable.	

	Main component 2: benefit-based charge	
	<i>Benefit-based charge must apply to benefit-based investments</i>	
12.	The TPM must include a benefit-based charge for each benefit-based investment .	The benefit-based charge needs to be calculated and allocated by reference to a particular asset or assets, but it is said to be "for each benefit-based



		<p>investment". A problem arises because the "investments" listed in clause 13 (which defines "benefit-based investment") are not assets. They are projects.</p> <p>One way of fixing this is to amend the definition of "benefit-based investment", as suggested below (clause 66). If that change is made, then all references to "assets comprising the benefit-based investment" or similar (e.g. clauses 14(a)(ii) and 16) can be replaced with just "benefit-based investment".</p>
13.	A benefit-based investment means:	
	(a) any post-2019 investments in the interconnected grid , including any <u>transmission alternatives</u> ;	<p>We understand that the purpose of clause 8 is to deal with the treatment of transmission alternatives in a global way rather than on a clause-by-clause basis, as is done here. The danger of the clause-by-clause approach is that not all relevant clauses are captured. We recommend retaining clause 8 and deleting the references to transmission alternatives elsewhere.</p> <p>Also, it is possible for there to be a transmission alternative for a connection asset investment, so "any transmission alternatives" in this clause is wrong.</p>
	(b) the following pre-2019 investments in the interconnected grid : <ul style="list-style-type: none">(i) the Bunnythorpe-Haywards Reconductoring Project(ii) investments in and associated with the <u>HVDC link</u>(iii) the Lower South Island Renewables Project;(iv) the Lower South Island Reliability Project;(v) the North Island Grid Upgrade (NIGU) Project;(vi) the Upper North Island Dynamic Reactive Support Project; and(vii) the Wairakei Ring Project;	



	(c) upgrading expenditure as provided for in clauses 30 to 32 below; and	
	(d) pre-2019 investments in the interconnected grid identified by means of a method established under clauses 62 and 63 below.	
	<i>Benefit-based charges must recover the covered cost of benefit-based investments</i>	
14.	The benefit-based charge for a benefit-based investment must recover, over the benefit-based investment's remaining life , the present value of the covered cost of that benefit-based investment , which comprises:	<p>This will not be true if the benefit-based investment is subject to reassignment.</p> <p>This may not be true if:</p> <ul style="list-style-type: none">- a simple method is used to allocate the benefit-based charge (see our comment on clause 23(c));- the investment is a reliability investment required to satisfy the deterministic limb of the grid reliability standards and has negative net benefits (because in that case there may not be any positive net private beneficiaries to allocate the charge to);- the investment is a previously economic investment that has become uneconomic over time (for the same reason); or- the investment is an enabling investment with no positive net beneficiaries initially. <p>In relation to the second, third and fourth points, while the guidelines may now avoid the "no beneficiaries" problem for NAaN and the other two omitted historical investments, the problem still potentially arises for post-2019 investments. What happens if there are no positive net private beneficiaries for a post-2019 investment? Does the covered cost go into the residual charge until at least one beneficiary can be identified?</p>



	<p>(a) the capital cost of the benefit-based investment, based on:</p> <ul style="list-style-type: none"> (i) for post-2019 benefit-based investments, the value of commissioned assets forming part of that benefit-based investment; (ii) for pre-2019 benefit-based investments, the depreciated value of the <u>assets</u> comprising the benefit-based investment as recorded in the regulatory asset base at the date the benefit-based charge is first applied to the benefit-based investment; 	
	<p>(b) a return on capital for the benefit-based investment, based on its capital cost as allowed for under paragraph (a) and WACC;</p>	
	<p>(c) an amount of forecast opex reasonably attributable to the benefit-based investment based on an allocation of the opex allowance for the pricing year as set by the Commerce Commission in the IPP; and</p>	The Commerce Commission reference is unnecessary given the definition of "IPP".
	<p>(d) any other costs attributable to that benefit-based investment.</p>	"Costs" should be "forecast costs".
	<i>Recovery of the covered cost of a benefit-based investment over time</i>	
15.	<p>The TPM must provide for the annual benefit-based charges for each post-2019 benefit-based investment to be calculated:</p> <p>(a) using the following method:</p> <ul style="list-style-type: none"> (i) the expected benefit-based charge for the benefit-based investment is divided into equal annual amounts over the benefit-based investment's remaining life; and 	<p>In subclause (a)(i) "expected" is unnecessary.</p> <p>It should be discretionary, not mandatory, for Transpower to use an alternative method for calculating the annual charges. Our proposed alternative drafting for subclause (b) (which would be in a separate clause) is as follows:</p> <p><i>15A The TPM may provide for the annual benefit-based charges for a post-2019 benefit-based investment to be calculated using an alternative method if:</i></p>



	<p>(ii) the annual amounts determined under subclause (a)(i) are adjusted for inflation over the benefit-based investment's remaining life using an index determined by <u>Transpower</u>; or</p> <p>(b) according to an alternative method, where that alternative method:</p> <p>(i) would better meet the <u>Authority's</u> statutory objective than the method described in paragraph (a); and</p> <p>(iii) would still recover the covered cost of that benefit-based investment.</p>	<p>(a) <i>Transpower considers that the alternative method would better meet the <u>Authority's</u> statutory objective than the method in clause 15; and</i></p> <p>(b) <i>the alternative method fully recovers the covered cost of the benefit-based investment.</i></p> <p>As commented on clause 14, subclause (b) of this alternative drafting may not always be true.</p>
16.	<p>The TPM must provide that <u>Transpower's</u> recovery of the capital components for each pre-2019 benefit-based investment for a pricing year under the TPM must be the same as the forecast depreciation and forecast capital charge in that pricing year for the assets of that benefit-based investment under the IPP.</p>	<p>We assume that the recovery profile for elements of the covered cost other than the capital component is intended to be at our discretion.</p> <p>Replacing the words "capital charge" with "return on capital" would be consistent with clause 14(b).</p>
17.	<p>The TPM must allow <u>Transpower</u> to adjust future annual benefit-based charges for a benefit-based investment if, in <u>Transpower's</u> reasonable assessment, there has been, or will be, a material change to any of the expected future:</p> <p>(a) WACC;</p> <p>(b) opex attributable to the benefit-based investment;</p> <p>(c) remaining life of the benefit-based investment; or</p> <p>(d) any other costs attributable to the benefit-based investment.</p>	<p>We suggest that this clause and clauses 18, 25, 26, 32(b) and (to the extent it applies to benefit-based charges) 42 be replaced with new combined (and simplified) clauses so that changes affecting benefit-based charges are dealt with in one place. See our proposed alternative drafting for those clauses below (clauses XA to XC).</p> <p>One of the changes in the alternative drafting is removing "expected future" because the charges should not change before the change to the relevant input actually happens (although we will prepare for the input change if we know about it in advance).</p> <p>In subclause (b) "opex" should be "forecast opex", and in subclause (d) "costs" should be "forecast costs".</p>



	The benefit-based charge must recover the present value of the covered cost of each benefit-based investment .	This is already stated in clause 14. As commented on clause 14, this statement may not always be true.
	<i>Damage to a benefit-based investment</i>	
18.	The TPM must allow <u>Transpower</u> to adjust or end future annual benefit-based charges for a benefit-based investment where an <u>asset</u> or <u>assets</u> forming part of that benefit-based investment are destroyed or substantially damaged.	See our comment on clause 17, which proposes deleting this clause, and proposed alternative drafting below (clauses XA to XC). Decommissioning should also be covered.
	<i>Allocating annual benefit-based charges among customers</i>	
19.	The TPM must include one or more standard methods for allocating annual benefit-based charges .	It is more correct to say that the methods allocate the benefit-based charges. The annual benefit-based charges are then a product of that allocation.
20.	The TPM may include one or more simple methods for allocating annual benefit-based charges .	
21.	<p>The TPM must provide:</p> <ul style="list-style-type: none"> (a) that <u>Transpower</u> must use a standard method to allocate the annual benefit-based charges for high-value post-2019 benefit-based investments; (b) that <u>Transpower</u> must use Schedule 1 to allocate the annual benefit-based charges for the benefit-based investments included in Schedule 1; (c) where these Guidelines provide for an adjustment to the Schedule 1 allocations, a method for making that adjustment. That method must be a standard method, simple method or combination of both; and 	<p>In relation to subclause (b), we note that none of the allocations in Schedule 1 add up to exactly 100% for the relevant investment due to rounding (the totals range from 99.96% to 100.02%). That needs to be fixed or else there will be an over or under-recovery of benefit-based charges.</p> <p>There is no equivalent of clause 41 for the allocations in Schedule 1, meaning that material changes in the distribution of net private benefits for the historical investments between the time the new Guidelines are published and the time the benefit-based charges first appear in transmission prices are not captured. We are obliged to use the Schedule 1 allocations initially even if they are clearly wrong.</p>



	(d) that <u>Transpower</u> must use a standard method, simple method or combination of both to allocate the annual benefit-based charges for any other benefit-based investments .	
22.	<p>A standard method: must allocate the annual benefit-based charge for a benefit-based investment between the <u>designated transmission customers</u> expected to benefit from the benefit-based investment in proportion to their expected positive net private benefit from the benefit-based investment over its remaining life; where necessary, may determine expected positive net private benefits using one or more reasonable proxies. Such proxies must, in <u>Transpower's</u> reasonable opinion, result in an allocation of the benefit-based charge to each <u>designated transmission customer</u> who receives a major positive net private benefit from the benefit-based investment that broadly approximates the allocation that <u>Transpower</u> considers would have resulted had expected net private benefits been used to calculate the allocation.</p>	<p>The last sentence of subclause (b) is unnecessary. "Proxy" means an approximation. The sentence also suggests we have to carry out another net private benefit calculation to cross-check the proxies, which we should not have to do. Also, it is likely all standard methods will use proxies of some sort, in which case there will not be a "true" source of net private benefit information to compare to.</p>
23.	<p>A simple method:</p> <p>(a) must be capable of being implemented at a lower cost to <u>participants</u>, including <u>Transpower</u>, than the standard method(s). Cost includes administrative burdens on <u>participants</u> but does not include increases in resulting transmission charges;</p> <p>(b) must, in <u>Transpower's</u> reasonable opinion, result in an allocation of the benefit-based charge to the <u>designated transmission customers</u> who receive a major positive net private benefit from the benefit-based investment that broadly approximates the allocation that <u>Transpower</u> considers would have resulted had the standard method been applied. However, <u>Transpower</u> is</p>	<p>Subclause (b) should refer to "a standard method" as there may be more than one.</p> <p>In relation to subclause (c), if a non-major beneficiary is exempted, does that beneficiary's share go to the major beneficiaries or into the residual? If the latter, this will be an exception to the rule that the benefit-based charge must fully recover the covered cost of the relevant investment.</p>



	<p>not required to apply the standard method solely for the purpose of making this assessment; and</p> <p>(c) may exempt <u>designated transmission customers</u> who do not receive a major positive net private benefit from a benefit-based investment from receiving an allocation of the annual benefit-based charges for the benefit-based investment.</p>	
24.	<p>The TPM must provide that, save for benefits and costs included at <u>Transpower's</u> discretion, the treatment of benefits and costs used to calculate net private benefits, to the extent applicable, in respect of post-2019 benefit-based investments under each standard method and each simple method must be consistent with, though not necessarily identical to, the treatment of the relevant electricity market benefit or cost elements under the test used by the Commerce Commission in its approval of the post-2019 benefit-based investment, unless <u>Transpower</u> considers there has been a material change since that test was applied.</p>	<p>There are potentially material differences in the way net private benefits would need to be calculated compared to the assessment of electricity market benefits and costs under the Commerce Commission's investment test. For example, under the investment test we use a "no NZAS" scenario. Application of that scenario to the net private benefit calculation would result in a zero benefit for NZAS under the scenario, and bias downwards NZAS' share of the relevant benefit-based charge.</p> <p>We note that the investment test does not apply to our base capex investments.</p>
25.	<p>The TPM must provide that, once a <u>designated transmission customer's</u> share of the annual benefit-based charge has been allocated, that share will not change, save where these Guidelines permit otherwise.</p>	<p>See our comment on clause 17, which proposes deleting this clause, and proposed alternative drafting below (clauses XA to XC).</p> <p>In our view there is a fundamental contradiction in having a beneficiaries-pay charging regime with fixed or pseudo-fixed charges. Over time this will mean the charges will not reflect reality (the actual benefits customers receive) and the regime will not be durable.</p>
26.	<p>The TPM must provide:</p> <p>(a) that <u>Transpower</u> may review the allocation of future annual benefit-based charges for a high-value benefit-based investment if <u>Transpower</u> considers there has been, or expects that there will be, a substantial and sustained change in <u>grid</u> use affecting the net private benefits derived by one or more</p>	<p>See our comment on clause 17, which proposes deleting this clause, and proposed alternative drafting below (clauses XA to XC).</p> <p>In our view the qualifier "were not factored into" in subclause (b) is not appropriate because a substantial change in probability is still a substantial change. For example, a probability change from 1% to 100% should not be treated differently to a probability change from 0% to 100%. What matters is that the allocation of a benefit-based charge reasonably accurately reflects</p>



	<p>designated transmission customers from the benefit-based investment;</p> <p>(b) that a substantial change in <u>grid</u> use will only have occurred where the circumstances which have eventuated were not factored into the calculations used to allocate the relevant charges;</p> <p>(c) a method for <u>Transpower</u> to determine whether there has been a substantial and sustained change in <u>grid</u> use affecting a high-value benefit-based investment; and</p> <p>(d) a method/s for adjusting allocations in the event that there has been a substantial and sustained change in <u>grid</u> use.</p>	<p>positive net private benefits arising from the relevant investment. That may not be the case regardless of whether the future circumstances were factored into the initial allocation.</p> <p>Subclauses (c) and (d) are unnecessary. The TPM will include methods for everything required by the guidelines.</p>
	<i>Implementation timeframe for the benefit-based charge</i>	
27.	The TPM must provide for the benefit-based charge to apply to high-value post-2019 benefit-based investments and pre-2019 benefit-based investments to which Schedule 1 applies from the commencement of the TPM or the date on which the investment is commissioned (whichever is later).	
28.	The TPM must provide for benefit-based charges for low-value post-2019 benefit-based investments to be phased in as soon as is reasonably practicable after the benefit-based charge has been applied to the high-value benefit-based investments listed in clause 27 and no later than five years after the commencement of the TPM .	"Listed in" should be "referred to in".
29.	The TPM must provide that the implementation of additional components , other than a transitional peak charge , must be deferred if necessary in order to expedite the implementation of the benefit-based charge for high-value benefit-based investments .	



	<i>Upgrading expenditure</i>	
30.	Upgrading expenditure , in relation to existing benefit-based investments , means expenditure that results in an extension to the existing benefit-based investment's remaining life or otherwise increases the benefits that benefit-based investment is expected to provide.	
31.	The TPM must provide that, where <u>Transpower</u> undertakes upgrading expenditure , that upgrading expenditure must be recovered using the method prescribed in these Guidelines for recovering the covered cost of a post-2019 benefit-based investment having a capital cost equal to the cost of the upgrading expenditure .	
32.	<p>Subject to clause 31, in recovering upgrading expenditure on existing benefit-based investments, <u>Transpower</u> may:</p> <ul style="list-style-type: none">(a) treat the upgrading expenditure as a new benefit-based investment; or(b) adjust as appropriate the value of the benefit-based investment, its remaining life, its estimated benefits and the calculation and allocation of the annual benefit-based charge for it, in order to reflect the changes caused by the upgrading expenditure. An adjustment under this paragraph may alter the covered cost and allocation for the overall benefit-based investment (comprising the initial benefit-based investment and the upgrading expenditure). However, such an adjustment is not to alter the requirement to recover the covered cost of the initial benefit-based investment or the calculation of net private benefits for the initial benefit-based investment.	In relation to subclause (b), see our comment on clause 17, which proposes deleting this subclause, and proposed alternative drafting below (clauses XA to XC).



	Reassignment	<p>This section is about optimisation, but without using that word. We do not agree with reassignment/optimisation. See our answer to the Authority's question 26.</p> <p>As an alternative to reassignment/optimisation, we have suggested some drafting below that allows for the benefit-based charge for a high-value benefit-based investment to be reduced so that it is not greater than the total net private benefits arising from the investment (clause XB(d)).</p>
33.	<p>The TPM must provide for a party to make an application to <u>Transpower</u> for reassignment of charges:</p> <ul style="list-style-type: none"> (a) where that party has a direct or indirect financial interest in the annual benefit-based charge for that benefit-based investment; (b) where the benefit-based investment had an initial value of \$5 million or more (with this threshold to be adjusted for inflation); and (c) whether or not the benefit-based investment has previously been subject to reassignment. 	<p>The words "direct or indirect financial interest" in subclause (a) capture too many potential applicants, such as individual consumers and shareholders. In our view only designated transmission customers that pay for the relevant investment should be able to apply.</p> <p>The threshold of \$5 million in subclause (b) is too low, especially as it is an initial value. In our view the threshold should be based on the depreciated value of the investment and be increased to \$20m (consistent with the definition of "high-value").</p>
34.	<p>The TPM must provide that a benefit-based investment must, and may only, be subject to reassignment if <u>Transpower</u> considers that the circumstances which led to the reassignment are likely to be sustained and:</p> <ul style="list-style-type: none"> (a) for a pre-2019 benefit-based investment, the investment's value following reassignment would be less than 80% of its current value; (b) for a post-2019 benefit-based investment: <ul style="list-style-type: none"> (i) where the disconnection of a single party causes the benefit-based investment's value following 	<p>80% of current value is an arbitrary threshold. Also, we will need to carry out the optimisation exercise to determine whether the 80% threshold is met, so this is not an effective screening mechanism in terms of avoiding the administrative burden.</p> <p>The single party requirement for post-2019 investments in subclause (b) is another arbitrary threshold. It is also unclear whether this threshold would be met if a customer did not completely disconnect from the grid (or from another network, assuming subclause (b) is intended to capture other networks, which is unclear).</p>



	<p>reassignment to be less than 80% of its current value; or</p> <p>(ii) the benefit-based investment has been commissioned or otherwise been in operation for the period of time specified in the TPM for the purpose of this subclause and its value following reassignment is now less than 80% of its current value.</p>	
35.	In setting a period of time for which a post-2019 benefit-based investment must have been commissioned in order for it to be eligible for reassignment , the TPM must provide for that period to be sufficiently long that the prospect of reassignment will likely have a negligible impact on the characteristics of the post-2019 benefit-based investment that <u>designated transmission customers</u> are incentivised to seek.	
36.	The TPM must include a method for determining the value of a benefit-based investment following reassignment which is consistent with the revision to forecast future demand for transmission lines services which gave rise to the reassignment .	
37.	The TPM must provide that, where <u>Transpower</u> determines that the circumstances which led to the reassignment no longer exist, it must reverse the reassignment (that is, restore the value of the benefit-based investment to the value that would have applied if the reassignment had not taken place) or adjust the level of the reassignment , as is appropriate.	Do we have to continually monitor this or is it by application (as the original optimisation would have been)? If by application, who can apply?
38.	The TPM must provide that, where <u>Transpower</u> determines to carry out reassignment with respect to a benefit-based investment or reverse a reassignment , it must:	



	<ul style="list-style-type: none"> (a) modify the annual benefit-based charge for that investment to take into account the change in the benefit-based investment's value; (b) adjust the allocation of the annual benefit-based charge to <u>designated transmission customers</u> to the extent necessary to take into account the change in forecast future demand for transmission lines services which led to the reassignment or reversal of the reassignment; and (c) adjust the residual charge as necessary to take into account the changes to the annual benefit-based charge. 	
--	--	--

Transpower comment:

Clauses XA, XB and XC are proposed to replace clauses 17, 18, 25, 26, 32(b) and (to the extent it applies to benefit-based charges) 42. Refer to our comments on each of those clauses.

We have suggested two drafting options for proposed clause XC (reallocating benefit-based charges). The first version reflects the Authority's proposed re-openers with some recommended improvements. The second, shorter, version is an option for simplifying how the guidelines deal with triggers for reallocation. In our view the Guidelines should adopt the principle that the allocation of a benefit-based charge may change whenever there is a material misalignment between net benefits and the allocation, regardless of the cause of that.

Changes to benefit-based charges and allocations

XA. The **TPM** must provide that:

- (a) a **benefit-based charge** must not change except as specified in clause XB; and
- (b) the allocation of a **benefit-based charge** must not change except as specified in clause XC.

XB. Transpower may change or end future **annual benefit-based charges** for a **benefit-based investment** if:

- (a) Transpower considers there has been a material change to the **covered cost** or **remaining life** of the **benefit-based investment** (including due to **upgrading expenditure**);



- (b) the **benefit-based investment** has been decommissioned, destroyed or substantially damaged;
- (c) the **benefit-based investment** is subject to **reassignment**; or
- (d) for a **high-value benefit-based investment**, Transpower considers the **annual benefit-based charges** need to decrease or end so that the total future **annual benefit-based charges** for the **benefit-based investment** does not exceed total **positive net private benefits** to be derived from the **benefit-based investment** over its **remaining life**.

XC. Transpower may change the allocation of future **annual benefit-based charges** for a **benefit-based investment** if:

- (a) new **large plant** connects directly or indirectly to the grid affecting the **positive net private benefits** derived from the **benefit-based investment**;
- (b) there is a substantial and sustained increase in existing **large plant's** electricity generation or electricity consumption affecting the **positive net private benefits** derived from the **benefit-based investment**;
- (c) the **positive net private benefits** derived from the **benefit-based investment** are affected by a new direct connection to the grid by a new or existing designated transmission customer, other than in the circumstances described in subclause (a);
- (d) the **positive net private benefits** derived from the **benefit-based investment** are affected by a designated transmission customer ceasing to have a direct connection to the grid at one or more of its points of connection;
- (e) for a **high-value benefit-based investment**, Transpower otherwise considers there has been a substantial and sustained change in grid use affecting the **positive net private benefits** derived from the **benefit-based investment**; or
- (f) a designated transmission customer that is allocated the **benefit-based charge** sells part of its business.

[or]

XC. Transpower may change the allocation of future **annual benefit-based charges** for a **benefit-based investment** if Transpower considers the current allocation of the **annual-benefit based charges** does not reflect the **positive net private benefits** derived from the **benefit-based investment**, to a material extent.



	Main component 3: residual charge	
39.	The TPM must provide for a residual charge to apply to all <u>designated transmission customers</u> to the extent that they are load to recover any remaining forecast MAR not recovered through other transmission charges .	"Are load" should be "consume electricity". See our comment on clause 41.
40.	<p>The TPM must provide for the residual charge to be allocated:</p> <ul style="list-style-type: none"> (a) in proportion to each <u>designated transmission customer's</u> historical anytime maximum demand, which is to be calculated using data supplied by the <u>reconciliation manager</u> and by: <ul style="list-style-type: none"> (i) taking, in a pricing year, the highest value for any <u>trading period</u> which represents the sum of: <ul style="list-style-type: none"> A. the highest net quantity of <u>electricity</u> flow from the <u>grid</u> at the <u>designated transmission customer's grid exit point</u>; and B. <u>Transpower's</u> estimate of any concurrent generation by <u>distributed generators</u> or behind-the-meter generation that is indirectly connected to the <u>grid</u> through the <u>designated transmission customer</u>; and (ii) taking the average of that value over at least two years ending prior to either 1 July 2019 or the date 10 years prior to the date on which the residual charge is to be assessed, whichever is the later; or (b) by an alternative method of allocating the charge to <u>designated transmission customers</u> to the extent that they are load, should <u>Transpower</u> consider that the alternative method would better meet the <u>Authority's</u> statutory objective than the method set out in paragraph (a) above. 	<p>In relation to subclause (a)(i)(A), what happens if the customer has more than one GXP? Are there to be separate allocations of the residual charge for each GXP?</p> <p>In our view the term "behind-the-meter generation" used in subclause (a)(i)(B) should be defined.</p> <p>Subclause (a)(ii) implies a reassessment of the residual charge allocation after 10 years (and then, potentially, annually after that) but is not clear. The question of when the residual charge "is to be assessed" (reassessed) is not answered explicitly.</p> <p>Subclause (a) does not address how to allocate the residual charge to new customers, who will not have any historical demand.</p> <p>In relation to subclause (b), it should be discretionary, not mandatory, for Transpower to use an alternative method for allocating the residual charge. Our proposed alternative drafting for subclause (b) (which would be in a separate clause) is as follows:</p> <p>40A <i>The TPM may provide for the residual charge to be allocated using an alternative method if <u>Transpower</u> considers that the alternative method would better meet the <u>Authority's</u> statutory objective than the method in clause 40.</i></p>



41.	<p>The TPM must provide that, in initially allocating the residual charge under clause 40, <u>Transpower</u> may adjust the allocation where necessary to accommodate circumstances in which a <u>designated transmission customer</u> has experienced a substantial change in <u>demand</u> due to factors beyond their control or influence. For the purposes of this clause, a substantial change in <u>demand</u> is to be assessed relative to the <u>designated transmission customer's</u> remaining <u>demand</u>.</p>	<p>We assume the “substantial change” referred to in this clause is a change that occurs between July 2019 and the time the TPM commences. That should be stated.</p> <p>In our view it would be better to apply the same change triggers during that period as apply to the residual charge after it is initially allocated. We propose alternative drafting to achieve that below (clause ZA).</p> <p>The term “demand” should be avoided because the Code definition of demand is a measure of power rather than electrical energy. “Electricity consumption”, with “electricity” having its Code meaning (i.e. electrical energy), is better.</p> <p>It is unclear whether this clause is intended to refer to a change in net or gross consumption (we assume the latter).</p> <p>We do not think it is practicable for Transpower to determine whether a change in electricity consumption could have been controlled or influenced (certainly the latter) by the customer. The words “due to factors beyond their control or influence” should be deleted.</p> <p>We note that this clause may not apply if we chose an alternative allocation method under clause 40(b) that does not rely on historical demand.</p> <p>Our proposed alternative drafting for clauses 41 and (to the extent it applies to the residual charge) 42 is below (clauses ZA to ZC).</p>
-----	--	--

	<i>Provisions relating to adjustments</i>	
42.	<p>The TPM must:</p> <ul style="list-style-type: none">(a) provide for a process for allocating benefit-based charges and residual charges in respect of:<ul style="list-style-type: none">(i) new large consumers or generators;	<p>Subclause (a) only captures events that increase generation or load directly or indirectly connected to the grid. Because there is no equivalent of proposed clause 26 (substantial and sustained change in grid use) for the residual charge, there is no ability for Transpower to reallocate the residual charge if a load customer disconnects from the grid. We would not be able</p>



	<p>(ii) existing large consumers or generators who establish a new plant or <u>generating unit</u> or increase (where that increase is substantial and sustained) an existing plant's <u>electricity</u> use or an existing <u>generating unit's</u> generation, where that plant or <u>generating unit</u> is directly or indirectly connected to the <u>grid</u>;</p> <p>(b) provide that, where a <u>designated transmission customer</u> sells part of its business, <u>Transpower</u> may allocate the <u>designated transmission customer's</u> charges between the original and new owners; and</p> <p>(c) avoid creating inefficient incentives for a large consumer or generator to shift their <u>point of connection</u> (beyond the ability to do so in the prudent discount policy). The prudent discount policy may apply to circumstances where a large consumer or generator is considering shifting their <u>point of connection</u>, but the TPM must include additional provisions to avoid creating such incentives.</p>	<p>to continue to charge the disconnected load customer if they were no longer a designated transmission customer. In that case there would be no mechanism under the TPM by which we could recover the former load customer's share of the residual charge.</p> <p>At clause 66 we have suggested a new defined term "large plant" in place of the defined term "large consumer or generator". In our view the change trigger in subclause (a)(i) needs to focus on the plant rather than the consumer or generator.</p> <p>We note the subclause (a)(i) change trigger does not capture all new transmission customers (smaller consumers, smaller generators and distributors). We do not think it is intended that some new transmission customers escape an allocation of benefit-based charges for past investments and the residual charge.</p> <p>Subclause (c) should be deleted. We cannot do anything about the incentives (inefficient or otherwise) that the design of the charges in the guidelines may create. For example, we cannot do anything about:</p> <ul style="list-style-type: none">- a transmission customer choosing to shift to a different grid connection point to get a better benefit-based charge outcome (which would be a substantial and sustained change in grid use); or- a large consumer deciding to disconnect from the grid and become self-sufficient to avoid transmission charges. <p>The risk of inefficient investments driven by transmission charges should continue to be dealt with via the established prudent discount mechanism.</p> <p>If subclause (c) is retained it should be amended for accuracy as to how the prudent discount policy works. The application of the prudent discount policy would involve a notional switch, not an actual one as implied by the current drafting of subclause (c). The final sentence of subclause (c)</p>
--	--	--



		<p>suggests that prudent discounts are only available to large consumers or generators, which is not the case.</p> <p>Our proposed alternative drafting for clause 42 is above (clauses XA to XC for benefit-based charges) and below (clauses ZA to ZC for the residual charge).</p>
--	--	---

Transpower comment:

Clauses ZA, ZB and ZC are proposed to replace clauses 41 and (to the extent it applies to the residual charge) 42. Refer to our comments on each of those clauses.

- ZA** *The **TPM** must provide that, when initially allocating the **residual charge** in accordance with the method referred to in clause 40, Transpower may adjust the allocation if any of the events referred to in clause ZC have occurred between 1 July 2019 and when the **residual charge** is initially allocated.*
- ZB.** *The **TPM** must provide that the allocation of the **residual charge** must not change except:*
- (a) as specified in clause ZC; or*
 - (b) if Transpower re-evaluates the allocation in accordance with the method referred to in clause 40 or 40A.*
- ZC.** *Transpower may change the allocation of the **residual charge** if:*
- (a) new **large consumer plant** connects directly or indirectly to the grid;*
 - (b) there has been a substantial and sustained increase in existing **large consumer plant's electricity** consumption;*
 - (c) there is a new direct connection to the grid by a new or existing **load customer**, other than in the circumstances described in subclause (a);*
 - (d) a **load customer** ceases to have a direct connection to the grid at one or more of its points of connection; or*
 - (e) a **load customer** sells part of its business.*



	<i>The charges may need to be scaled back</i>	
43.	<p>The TPM must provide for the charges set under it to be scaled back if, in any pricing year:</p> <p>(a) applying the other provisions of the TPM would result in <u>Transpower</u> recovering more than its forecast MAR; or</p> <p>(b) <u>Transpower</u> wishes to recover less than its forecast MAR.</p>	
44.	<p>The TPM must provide that, where clause 43(a) applies, charges are to be scaled back in the following order:</p> <p>(a) the residual charge;</p> <p>(b) the annual benefit-based charge for pre-2019 benefit-based investments; then</p> <p>(c) the annual benefit-based charge for post-2019 benefit-based investments.</p>	<p>The residual charge would not be able to be scaled back in the clause 43(a) scenario because it would already be zero (there being no excess revenue requirement to wash up).</p> <p>There is one benefit-based charge per investment so in subclauses (b) and (c) "annual benefit-based charge" should be plural.</p>
45.	<p>The TPM must provide that, where clause 43(b) applies, <u>Transpower</u> may first scale back the annual benefit-based charge for a benefit-based investment. However, such a scaling back of the annual benefit-based charge must not result in an increase to the residual charge.</p>	<p>The different treatment of the clause 43(a) and 43(b) scenarios seems arbitrary and is not explained in the issues paper. "A benefit-based investment" implies that only one benefit-based charge can be scaled back, which may not be the intent.</p>
	Main component 4: prudent discount policy	
46.	<p>The TPM must provide for a prudent discount policy that encourages <u>designated transmission customers</u> not to inefficiently bypass the <u>grid</u>, including encouraging load customers not to inefficiently disconnect from the <u>grid</u> in favour of alternative supply.</p>	<p>The use of the word "bypass" implies disconnection from the grid, whereas the notional project may involve the customer changing its point of connection to the grid to avoid benefit-based charges (for example). We suggest "inefficiently bypass, or change point of connection to, the grid".</p>



47.	<p>The prudent discount must be available where a <u>designated transmission customer</u> can establish that:</p> <ul style="list-style-type: none">(a) it would be technically and operationally feasible, and commercially beneficial, for the <u>designated transmission customer</u> to undertake the relevant action described in clause 46; and(b) the relevant action would be inefficient to implement given Transpower's economic costs of providing the <u>designated transmission customer</u> with access to the interconnected grid and the economic costs incurred by the <u>designated transmission customer</u> if it proceeded with the relevant action described in clause 46.	<p>In subclause (b) "interconnected grid" should be "grid".</p>
48.	<p>The prudent discount must apply for the remaining life of the relevant investment, unless <u>Transpower</u> and the party receiving the prudent discount agree to a different period.</p>	<p>There should not be a default period of the remaining life of the investment (which investment?) because the conditions that applied when the prudent discount was agreed may not be enduring. As this clause is drafted, customers will be able to force inappropriately long prudent discounts. In our view the period should be whatever the parties agree it is.</p>

	Cap on transmission charges	<p>We do not agree with the design of the proposed cap. See our comments in the covering letter of our submission and answers to the Authority's questions 39 to 42.</p>
49.	<p>Subject to clause 53, the TPM must provide for a price cap on each load customer's total transmission charges excluding:</p> <ul style="list-style-type: none">(a) any connection charge;	<p>In our view the proposed drafting for the Authority's price cap design would benefit from some changes for clarity. Our proposed alternative drafting for clauses 49 to 53 (assuming the Authority's price cap design is retained) is below (clauses YA to YH and related definitions).</p>



	<ul style="list-style-type: none"> (b) any peak charge; (c) any kvar charge; (d) any charge attributable to investments commissioned or otherwise entering into operation after the end of the 2019/20 pricing year; (e) any benefit-based charge in respect of any pre-2019 benefit-based investment identified by means of a method established under clauses 62 and 63; (f) any increase in the residual charge due to a reassignment of a benefit-based investment; (g) any increase in a <u>designated transmission customer's</u> allocation of the annual benefit-based charge for a benefit-based investment due to a reallocation under clause 26; and (h) the application of clause 42. 	<p>If the Authority were to leave the design of the price cap to be developed by Transpower, a clause similar to the transitional clause in the current guidelines would suffice. For example:</p> <p><i>Y. The TPM must provide for transitional arrangements where changes to the TPM as a result of these Guidelines would otherwise lead to large increases or decreases in transmission charges for <u>designated transmission customers</u>.</i></p>
50.	<p>Subject to clause 53, in setting a price cap, the TPM must provide for:</p> <ul style="list-style-type: none"> (i) any increase in a <u>distributor's transmission charges</u> subject to the price cap as set out in clause 49, as compared to its transmission charges minus its connection charges in the 2019/20 pricing year, to be limited to no more than the amount resulting from the following formula: $B \times (0.035 + \text{CPI} + L)$ <p>where:</p> <p>B is <u>Transpower's estimate</u> of the total <u>electricity bill</u> for all <u>consumers</u> supplied, directly or indirectly, from the <u>distributor's network</u> in the 2019/20 pricing year (expressed in dollars), calculated as:</p> $B = C + P \times V$	



	<p>and where</p> <p>CPI is the change in the Consumer Price Index since the 2019/20 pricing year (expressed as a decimal);</p> <p>L is the increase in the <u>distributor's</u> load since the 2019/20 pricing year, if any (expressed as a decimal);</p> <p>C is the <u>distributor's</u> total line charge revenue for the 2019/20 pricing year excluding <u>GST</u> from Schedule 8 Report on Billed Quantities and Line Charges Revenues of the Electricity Distribution Information Disclosure Determination 2012;</p> <p>P is the volume weighted average of wholesale energy prices at the <u>distributor's grid exit point</u> or points for the 5 years up to and including the 2019/20 pricing year from the <u>Authority's</u> Electricity Market Information database, expressed in \$/MWh and excluding <u>GST</u>, with weights being the gross load as determined by the <u>reconciliation manager</u>; and</p> <p>V is the <u>distributor's</u> total gross load for the 2019/20 pricing year, expressed in MWh, as determined by the <u>reconciliation manager</u>;</p> <p>(j) any increase in a <u>direct consumer's transmission charges</u> subject to the price cap as set out in clause 49, as compared to its transmission charges minus its connection charges in the 2019/20 pricing year, to be limited to no more than:</p> <p>$B \times (0.035 + 0.02 \times Y + \text{CPI} + L)$</p> <p>where:</p>	
--	---	--



B is Transpower's estimate of the total electricity bill of that direct consumer in the 2019/20 **pricing year** (expressed in dollars), calculated as;

$$B = T + P \times V$$

and where

Y is the greater of zero and of the number of **pricing years** which have elapsed since the 2019/20 **pricing year** minus 5;

CPI is the change in the Consumer Price Index since the 2019/20 **pricing year** (expressed as a decimal);

L is the increase in the direct consumer's load since the 2019/20 **pricing year**, if any (expressed as a decimal);

T is what the direct consumer's total **transmission charge** (including any **connection charge**) is or would have been under the existing **TPM** in the 2019/20 **pricing year**, excluding GST;

P is the volume weighted average of wholesale energy prices at the direct consumer's grid exit point or points for the 5 years up to and including the 2019/20 **pricing year** from the Authority's Electricity Market Information database, expressed in \$/MWh and excluding GST; and

V is the total direct consumer's load in the 2019/20 **pricing year** in MWh, such information to be obtained from the reconciliation manager; and

- (k) the price cap to be permanently removed for a particular **load customer** if, in any **pricing year** after the **pricing year** in which **benefit-based charges** are first applied to **low-value post-2019 benefit-based investments**, the cap does not have the effect of



	reducing the load customer's transmission charges subject to the price cap as set out in clause 49.	
51.	To the extent that the price cap results in a reduction in transmission charges for one or more load customers , the revenue so forgone is to be recovered by a surcharge on and proportional to the total of the benefit-based charge for the investments listed in clause 13(b) and the residual charge for each <u>designated transmission customer</u> .	
52.	The surcharge on the benefit-based charge and the residual charge for a <u>designated transmission customer</u> is to be reduced if necessary and to the extent necessary to ensure that its transmission charges subject to the price cap as set out in clause 49 meet the condition in clause 50.	
53.	The price cap provisions must not prevent <u>Transpower</u> from recovering its forecast MAR .	

Transpower comment:

Clauses YA to YH are proposed to replace clauses 49 to 53. See our comments on clause 49.

[New definitions]

initial pricing year means the first **pricing year** after the last **pricing year** for which **transmission charges** are set under the **TPM** applicable on the date of these **Guidelines**.

shortfall means the part of Transpower's maximum revenue that, but for clause YH, would not be recovered after applying the caps in clauses YB and YD.

specified charges means, for a **load customer**:

- (a) for the 2019/20 **pricing year**, the **load customer's** total **transmission charges** less its **connection charges**; and
- (b) for the **initial pricing year** and each subsequent **pricing year**, the **load customer's**:
 - (i) **benefit-based charges** for **benefit-based investments** first **commissioned** before 1 April 2020, except for:



- (A) **benefit-based charges** for **pre-2019 benefit-based investments** not listed in clause 13(b); and
- (B) increases in **benefit-based charges** arising from reallocations under clause 26;
- (ii) **residual charge**, except for any part of it attributable to **reassignment**; and
- (iii) allocation of the **shortfall** under clause YH.

specified charges increment is as described in clause YC or YE.

specified pricing year means the first **pricing year** for which the **transmission charges** include a **benefit-based charge** for a **low-value post-2019 benefit-based investment**.

YA. The **TPM** must provide for a cap on **specified charges** for **load customers** that complies with clauses YB to YG.

YB. Subject to clauses YF and YG, a distributor's **specified charges** for each **pricing year** from and including the **initial pricing year** (**pricing year n**) must not be more than:

$$DSC_{19/20} + Dcap_n$$

where:

DSC_{19/20} is the distributor's **specified charges** for the 2019/20 **pricing year**; and

Dcap_n is the distributor's **specified charges increment** for **pricing year n**.

YC. A distributor's **specified charges increment** for **pricing year n** is:

$$(C + (P \times V)) \times (0.035 + CPI_n + L_n)$$

Where:

C is the distributor's total line charge revenue (excluding GST) for the 2019/20 **pricing year**, determined from the distributor's Schedule 8 Report on Billed Quantities and Line Charge Revenues for the disclosure year ending on 31 March 2020 disclosed under the Electricity Distribution Information Disclosure Determination 2012 [2012] NZCC 22;

P is the volume weighted average of the final prices in \$/MWh (excluding GST) at the distributor's **grid exit point(s)** for the five **pricing years** up to and including the 2019/20 **pricing year**, determined from the Authority's Electricity Market Information database and (as to weightings) electricity consumption information to be obtained from the reconciliation manager;



V is the total gross electricity consumption in MWh on the distributor's local networks for the 2019/20 **pricing year**, determined from information to be obtained from the reconciliation manager;

CPI_n is the percentage increase (if any) in the Consumers Price Index (all groups) between the 2019/20 **pricing year** and **pricing year n**, expressed as a decimal; and

L_n is the percentage increase (if any) in total gross electricity consumption on the distributor's local networks between the 2019/20 **pricing year** and **pricing year n**, determined from information to be obtained from the reconciliation manager and expressed as a decimal.

YD. Subject to clauses YF and YG, a direct consumer's specified charges for each **pricing year** from and including the **initial pricing year (pricing year n)** must not be more than:

$$CSC_{19/20} + Ccap_n$$

where:

CSC_{19/20} is the direct consumer's specified charges for the 2019/20 **pricing year**; and

Ccap_n is the direct consumer's specified charges increment for **pricing year n**.

YE. A direct consumer's specified charges increment for **pricing year n** is:

$$(T + (P \times V)) \times (0.035 + CPI_n + L_n + (0.02 \times Y))$$

where:

T is the direct consumer's total transmission charges (excluding GST) for the 2019/20 **pricing year**;

P is the volume weighted average of the final prices in \$/MWh (excluding GST) at the direct consumer's grid exit point(s) for the five **pricing years** up to and including the 2019/20 **pricing year**, determined from the Authority's Electricity Market Information database and (as to weightings) electricity consumption information to be obtained from the reconciliation manager;

V is the direct consumer's total electricity consumption in MWh for the 2019/20 **pricing year**, determined from information to be obtained from the reconciliation manager;

CPI_n is the percentage increase (if any) in the Consumers Price Index (all groups) between the 2019/20 **pricing year** and **pricing year n**, expressed as a decimal;

L_n is the percentage increase (if any) in the direct consumer's total gross electricity consumption between the 2019/20 **pricing year** and **pricing year n**, determined from information to be obtained from the reconciliation manager and expressed as a decimal; and



Y is the greater of:

- (a) zero; and*
- (b) the number of **pricing years** between the 2019/20 **pricing year** and **pricing year** n minus five.*

*YF. The cap in clause YB or YD, as applicable, does not apply to a **load customer** from the **pricing year** immediately after the first **pricing year** after the **specified pricing year** that the cap does not reduce the **load customer's specified charges**.*

*YG. The caps in clauses YB and YD must not result in Transpower recovering less than its **maximum revenue**.*

*YH. The **TPM** must provide that any **shortfall** is to be allocated to designated transmission customers in proportion to their:*

- (a) **benefit-based charges** for the **benefit-based investments** listed in clause 13(b); plus*
- (b) **residual charge**.*

Transpower comment:

The new guidelines and TPM are an opportunity to address the so-called "first mover disadvantage" for investments that are funded by one or a few parties through investment agreements. The disadvantage arises because, currently, subsequent customers who benefit from those investments do not pay a capital contribution to them through transmissions charges.

Accordingly, clause V and related definitions are proposed. The "funded asset charge" would be a new core component and so consequential changes to the guidelines would be required.

[New definitions]

funded asset means a grid asset, the construction costs for which were partially or fully funded by one or more parties under an investment agreement.

funded asset charge means the charge described in clause V.

*V. The **TPM** must provide for designated transmission customers who connect to, or otherwise derive a **positive net private benefit** from, a **funded asset** to pay a contribution to the costs incurred by the funding party or parties for the construction of the **funded asset** (a **funded asset charge**). The **funded asset charge** must be deducted from:*



- (a) the **transmission charges** of the funding party or parties if they are designated transmission customers; or
- (b) otherwise, the **residual charge**.

	Additional components	
54.	<p>The TPM must incorporate each of the following additional components, where including that component would, in Transpower's reasonable opinion, better meet the <u>Authority's</u> statutory objective than not including that additional component:</p> <ul style="list-style-type: none"> (a) staged commissioning, as described in clause 55; (b) charges for assets principally providing connection services, as described in clause 56; (c) charges for connection assets, as described in clause 57; (d) a transitional peak charge, as described in clauses 58 to 61; (e) including additional pre-2019 investments in the benefit-based charge, as described in clauses 62 and 63; (f) charging for opex, as described in clause 64; and (g) a kvar charge, as described in clause 65. 	<p>The inclusion (or not) of the additional components should be at our discretion, even if the statutory objective test is arguably satisfied ("must" should be "may"). Making their inclusion mandatory would invite challenge from stakeholders who would prefer that any omitted additional components were included.</p> <p>We note that the Code does not require the TPM to be the <i>best</i> possible manifestation of the statutory objective; the TPM is required to be <i>consistent</i> with it.</p>
	Additional component A: staged commissioning	
55.	<p>This component must provide a method for <u>Transpower</u>, at its discretion, to adjust the time profile and allocation of charges over a benefit-based investment's remaining life where an investment is commissioned in stages so that it sometimes meets the definition of a connection asset, in order to best reflect the benefits provided while it is a connection investment relative to the benefits provided after it has become an investment in the interconnected grid. The benefit-</p>	<p>In our view this additional component should be deleted.</p> <p>There is a logic problem with this additional component. Following <i>Vector v Transpower</i>, the status quo is the same as what the additional component is advocating (i.e. the TPM speaks in the present tense when it comes to grid asset classification). As a result, it is unclear whether the proposed TPM could take the opposite approach (i.e. only the final intended commissioned state is relevant), or a different approach, if we consider that would produce</p>



	<p>based charge must recover the present value of the covered cost of each benefit-based investment, less any connection charges already paid.</p>	<p>better outcomes. Clauses 10 and 11 provide us with sufficient flexibility to decide what the rule should be.</p> <p>We note that, under the status quo, it is highly unlikely our customers would agree to staged commissioning regardless of whether staged commissioning is efficient or otherwise the best outcome for consumers. The status quo is not clearly consistent with the Authority's statutory objective.</p> <p>In any event, the drafting of this additional component contains a contradiction. An asset that is a benefit-based investment by definition cannot "sometimes meet the definition of a connection asset" because the definitions are mutually exclusive.</p>
	<i>Additional component B: charges for assets principally providing connection services</i>	
56.	<p>This component must provide a method to ensure that charges that apply to <u>assets</u> that provide connection services are not affected by connecting those <u>assets</u> to other <u>assets</u>, if they continue to provide principally the services of a connection asset, notwithstanding that they do not meet the formal definition of a connection asset.</p>	<p>This additional component is intended to close an undesirable loophole in the current TPM. As such, we think it should be part of the core requirements for the connection charge rather than an additional component.</p> <p>There is a reasonably straightforward way to address this issue at a definitional level in the TPM rather than by charging for interconnection assets as if they were connection assets. Our proposed alternative drafting is as follows (incorporated as a core component):</p> <p><i>Q. The TPM must include a method to ensure that connection assets cannot be changed into <u>interconnection assets</u> by a person other than <u>Transpower</u> investing in other <u>assets</u> to create an interconnection loop. The method may be applied to reclassify <u>interconnection assets</u> that would have remained as connection assets if the method had applied at the time those <u>assets</u> became <u>interconnection assets</u>.</i></p>



		This additional component must be able to be applied retrospectively. Otherwise the reclassification caused by the HAI-TMU line, which was the impetus for this additional component, will not be able to be addressed.
	<i>Additional component C: charges for connection assets</i>	
57.	This component must provide for the method for determining the annual amount to be recovered for each new connection asset to align with the method for determining the annual benefit-based charge for post-2019 benefit-based investments , notwithstanding the requirements of clauses 10 and 11.	<p>In our view this additional component should be deleted.</p> <p>The connection charge is already a beneficiaries pay charge and is not controversial. Any efficiencies that might be gained from treating connection assets as benefit-based assets are very unlikely to justify the transaction cost of the change.</p>
	<i>Additional component D: transitional peak charge</i>	<p>We are strongly of the view that a peak pricing signal should be retained in the TPM. See our comments in the covering letter of our submission and answers to the Authority's questions 44 to 46.</p> <p>In our view the drafting of this additional component is overly prescriptive. Among other things, there is no need for the guidelines to specifically mandate a phase out mechanism for the charge, especially as it is acknowledged that the phase out period may be extended and the phase out may be paused or reversed. See our proposed alternative drafting below (clauses UA and UB), which assumes the Authority choses to retain a default five-year phase out period (which we disagree with).</p> <p>The peak charge should not be described as "transitional". There may be good reasons for the peak charge to continue indefinitely, as contemplated by clause 61. In our view opportunities to incentivise peak management through the design of transmission charges should not be passed up in favour of more costly alternatives (such as paying for demand response as a transmission alternative).</p>
58.	This component must provide a method for determining, in respect of the transitional peak charge :	The words "would experience congestion" imply the grid congestion would be experienced immediately without the peak charge. Any peak charge is more likely to be aimed at avoiding congestion in the longer term, and



	<p>(a) the initial level of the charge;</p> <p>(b) the <u>designated transmission customers</u> or geographic areas to, or the circumstances in, which it applies; and</p> <p>(c) how the charge is to be allocated between <u>designated transmission customers</u>.</p> <p>The transitional peak charge may only apply in respect of those geographic areas, circuits or other circumstances which, in <u>Transpower's</u> reasonable opinion, would experience congestion without a transitional peak charge.</p>	<p>potentially beyond the five-year phase out period proposed by the Authority.</p> <p>Further, the practical capability to reduce peaks cannot be established overnight in response to a new charge that only applies once the grid is congested.</p>
59.	<p>If <u>Transpower</u> determines to include a transitional peak charge in the TPM, it must include in its outline required under clause 4 of these Guidelines, an explanation as to why it considers that <u>grid demand</u> will not be adequately controlled by the other prices including nodal pricing.</p>	<p>This clause is unnecessary given clause 4.</p>
60.	<p>If the TPM includes a transitional peak charge:</p> <p>(a) the transitional peak charge must be progressively phased out, such phase-out to commence no later than one year after the transitional peak charge is first imposed;</p> <p>(b) the phase-out of the transitional peak charge must result in it being phased out completely within five years of the TPM entering into effect. <u>Transpower</u> may, during this phase-out period, temporarily pause the phase-out or increase the transitional peak charge, including by reinstating a transitional peak charge which has already been phased out, where doing so would, in <u>Transpower's</u> reasonable opinion, better meet the <u>Authority's</u> statutory objective, provided that the phase-out is still completed within the five-year period unless <u>Transpower</u> has obtained the <u>Authority's</u> approval under paragraph (d) below to extend that period;</p>	<p>This clause is drafted in a way that makes the five-year time limit a hard stop for the peak charge. That is, any reinstatement must happen within the five years (or such longer phase out period as the Authority approves).</p> <p>In our view this should be changed so that a peak charge can be reinstated at any time if it is considered reasonably necessary to manage peak demand, without Transpower having to carry out an operational review under clause 12.85 of the Code.</p>



	<p>(c) the TPM must include the process for phasing out the transitional peak charge, including specifying the maximum transitional peak charge which can be levied in any year, which may be expressed as a percentage of the initial transitional peak charge; and</p> <p>(d) the TPM must include provision for Transpower to apply to the <u>Authority</u> during the phase-out period, to deviate from the maximum transitional peak charge that may be levied in any year, the time limit on or duration of the phase-out period. <u>Transpower</u> must provide to the <u>Authority</u> such information as the <u>Authority</u> requires to determine an application under this paragraph.</p>	
61.	Notwithstanding anything in clause 60 above, after the phase-out period has ended, <u>Transpower</u> may propose to reinstate or introduce a new transitional peak charge as part of a review under clause 12.85 of the Code . In proposing a reinstated or new transitional peak charge , <u>Transpower</u> must provide to the <u>Authority</u> such information as the <u>Authority</u> requires to assess <u>Transpower's</u> proposal.	This clause is unnecessary. Transpower is already empowered under the Code to carry out operational reviews on any aspect of the TPM.

Transpower comment:

Clauses UA to UB are proposed to replace clauses 58 to 61. Refer to our comments on those clauses.

*UA. This component must provide for a **peak charge** that applies to the extent Transpower considers that other prices, including nodal prices, do not adequately control peak demand for **transmission lines services** in particular geographic areas or circumstances.*

*UB. If the **TPM** includes a **peak charge**, the **peak charge** must not apply after the fourth **pricing year** after the **initial pricing year** unless Transpower obtains the Authority's approval.*



	<i>Additional Component E: Including additional pre-2019 investments in the benefit-based charge</i>	
62.	This component must include a method for extending the definition of benefit-based investment to other pre-2019 benefit-based investments in the interconnected grid and related services, including <u>transmission alternatives</u> , that contribute to <u>Transpower's forecast MAR</u> .	
63.	<p>If the TPM includes such a method, it:</p> <ul style="list-style-type: none"> (a) must specify a method for allocating the annual benefit-based charges for the benefit-based investments between <u>designated transmission customers</u>. The method must be a simple method as described in clause 23; (b) must provide for the benefit-based charge for such benefit-based investments to be capped at the present value of the aggregate positive net private benefits expected to be derived by <u>designated transmission customers</u> from the benefit-based investment over its remaining life; and (c) may include transitional provisions which phase in the relevant charges. 	<p>There may not be a simple method (as referenced in subclause (a)) because clause 20 is permissive, not mandatory.</p> <p>Subclause (a) is unnecessary in any event because clause 21(d) already covers pre-2019 investments introduced using this method.</p>
	<i>Additional component F: charging for opex</i>	
64.	This component must include a method for allocating opex expended in relation to connection assets and <u>assets</u> in a benefit-based investment to the <u>designated transmission customers</u> paying charges in relation to that <u>asset</u> or investment. The method must not use a proxy or generalised rule for allocation.	
	<i>Additional component G: kvar charge</i>	
65.	This component must include a method for imposing a kvar charge on <u>reactive power</u> .	



	Interpretation	
66.	In these Guidelines , unless the context otherwise requires it: 2019 Issues Paper means the issues paper prepared by the <u>Authority</u> under clause 12.81 of the Code and <u>published</u> by the <u>Authority</u> on [date] 2019.	
	additional component means one of the components required by clause 54 of these Guidelines to be included in the proposed TPM where <u>Transpower</u> considers that including that component will better meet the <u>Authority's</u> statutory objective than not including it.	The inclusion of an additional component should be discretionary, not "required by" clause 54.
	annual benefit-based charge means the amount of the benefit-based charge to be recovered in respect of a particular benefit-based investment in any one pricing year .	
	asset refurbishment has the meaning given to it in the Commerce Commission's <i>Transpower Capital Expenditure Input Methodology Determination</i> [2012] NZCC 2, as amended from time to time.	The capex input methodology determination is referred to multiple times. We suggest it be defined as "Transpower Capex IM".
	asset replacement has the meaning given to it in the Commerce Commission's <i>Transpower Capital Expenditure Input Methodology Determination</i> [2012] NZCC 2, as amended from time to time. benefit-based charge means the charge as described in clause 12.	
	benefit-based investment has the meaning given to it in clause 13.	We propose this alternative drafting: <i>benefit-based investment means, as the context requires:</i> <i>(a) an investment or project specified in clause 13; or</i> <i>(b) the <u>asset</u> or <u>assets</u> that resulted or result from the investment or project.</i>



	Code means the Electricity Industry Participation Code 2010, as amended from time to time.	
	commissioned has the meaning given to it in the Commerce Commission's <i>Transpower Input Methodologies Determination 2010</i> [2012] NZCC 17, as amended from time to time.	The input methodologies determination is referred to multiple times. We suggest it be defined as "Transpower IMs".
	connection assets means the <u>assets</u> owned by <u>Transpower</u> used to connect a <u>designated transmission customer</u> to the <u>grid</u> , and may have a more precise definition in the transmission pricing methodology as amended from time to time.	This definition does not clearly exclude interconnection assets. We propose this alternative drafting: <i>connection asset has the meaning given to it in the TPM at the date of these Guidelines, subject to any changes to that definition permitted by these Guidelines.</i>
	connection charge means the charge described in clauses 10 and 11. covered cost , in relation to a benefit-based investment , has the meaning given to it in clause 14. electricity market benefit or cost element has the meaning given to it in the Commerce Commission's <i>Transpower Capital Expenditure Input Methodology Determination 2012</i> [2012] NZCC 2, as amended from time to time.	
	forecast MAR means, for a pricing year , Transpower's forecast maximum allowable revenue as set by the Commerce Commission in the IPP , as amended from time to time. The IPP for the pricing year commencing 1 April 2010 is the Transpower Individual Price-Quality Path Determination 2020.	We propose this alternative drafting: <i>maximum revenue means, for a pricing year, the maximum revenue <u>Transpower</u> may recover during that pricing year, as set by the IPP.</i>
	generation customer means a <u>designated transmission customer</u> that is a <u>generator</u> . Guidelines means these guidelines. high-value , in respect of a benefit-based investment , means a benefit-based investment that, at the time it was first commissioned exceeded the "base capex threshold" as defined in the Commerce Commission's <i>Transpower Capital Expenditure Input Methodology Determination</i> [2012] NZCC 2, as amended from time to time,	



	<p>whether or not the investment would otherwise meet the test for “major capex”.</p> <p>interconnected grid means the <u>grid</u> including the <u>HVDC link</u> but excluding connection assets.</p>	
	<p>IPP means Transpower’s individual price-quality path determined by the Commerce Commission under Part 4 of the Commerce Act 1986 from time to time. At the date of these Guidelines the relevant determination is the <i>Transpower Individual Price-Quality Path Determination 2015</i>.</p>	<p>2015 should be either 2019 or 2020, with an appropriate citation in due course.</p>
	<p>large consumer or generator means an actual or potential user of transmission lines services (whether as load or generation) which could reasonably contemplate shifting its <u>point of connection</u>.</p>	<p>This definition captures distributors, which we think is unintentional given the use of the word “consumer”.</p> <p>In our view the focus should be on the consumer’s or generator’s plant, not the consumer or generator itself.</p> <p>We propose these alternative definitions:</p> <p><i>large consumer plant means new or existing <u>electricity</u> consuming plant:</i></p> <p>(a) <i>that is directly connected to the <u>grid</u>; or</i></p> <p>(b) <i>that:</i></p> <p>(i) <i>is indirectly connected to the <u>grid</u>; and</i></p> <p>(ii) <i><u>Transpower</u> considers is of such a size that it could viably connect directly to the <u>grid</u>.</i></p> <p><i>large generator plant means new or existing <u>generating</u> plant:</i></p> <p>(a) <i>that is directly connected to the <u>grid</u>; or</i></p> <p>(b) <i>that:</i></p> <p>(i) <i>is indirectly connected to the <u>grid</u>; and</i></p> <p>(ii) <i><u>Transpower</u> considers is of such a size that it could viably connect directly to the <u>grid</u>.</i></p>



		<i>large plant means large consumer plant or large generator plant.</i>
	load customer means a <u>designated transmission customer</u> that is a <u>distributor</u> or <u>direct consumer</u> .	In this definition “distributor” needs to be “distributor directly connected to the grid” because the Code definition of “distributor” captures embedded network owners.
	<p>low-value means, in respect of a benefit-based investment, a benefit-based investment which does not meet the definition for a high-value benefit-based investment.</p> <p>net private benefit means, for a <u>designated transmission customer</u>:</p> <p class="list-item-l1">(a) the value of the private benefits which are consistent with electricity market benefit or cost elements that arise from the benefit-based investment in respect of that <u>designated transmission customer</u> from the commencement date of the TPM; less</p> <p class="list-item-l1">(b) the value of the private costs which are consistent with electricity market benefit or cost elements (but excluding the cost of the benefit-based investment itself) that arise from that benefit-based investment in respect of that <u>designated transmission customer</u> from the commencement date of the TPM,</p> <p>provided that <u>Transpower</u> may, at its discretion, include as part of the calculation the value of other benefits or costs where those benefits or costs are substantial and result from the benefit-based investment.</p> <p>opex means “operating cost” as defined in the Commerce Commission’s <i>Transpower Input Methodologies Determination 2010</i>, as amended from time to time.</p>	



	peak charge means a charge, over and above nodal prices and the other transmission charges provided for in these Guidelines , imposed to influence peak demand for use of the <u>grid</u> .	
	positive net private benefit means for a <u>designated transmission customer</u> : (a) the net private benefit if it is positive; or (b) zero if it is not	
	post-2019 means, in respect of a benefit-based investment , a benefit-based investment to the extent that it is first commissioned after the <u>publication</u> of the 2019 Issues Paper (including any part of a pre-2019 benefit-based investment to the extent that it is commissioned after this date) and which at the relevant time of commissioning constitutes base capex or major capex as defined in the Commerce Commission's <i>Transpower Capital Expenditure Input Methodology Determination</i> [2012] NZCC 2.	For clarity, this definition should just state the relevant date (23 July 2019) rather than "after the publication of the 2019 Issues Paper". Same for the definition of "pre-2019".
	pre-2019 means, in respect of a benefit-based investment , a benefit-based investment to the extent that it is commissioned on or before the date of <u>publication</u> of the 2019 Issues Paper and which at the relevant time of commissioning would have constituted base capex or major capex as defined in the Commerce Commission's <i>Transpower Capital Expenditure Input Methodology Determination</i> [2012] NZCC 2.	See our comment on the definition of "post-2019".
	pre-2019 means, in respect of a benefit-based investment , a benefit-based investment to the extent that it is commissioned on or before the date of <u>publication</u> of the 2019 Issues Paper and which at the relevant time of commissioning would have constituted base capex or major capex as defined in	



	<p>the Commerce Commission's <i>Transpower Capital Expenditure Input Methodology Determination</i> [2012] NZCC 2.</p> <p>pricing year has the meaning given to it in the IPP.</p> <p>reassignment means a reassignment of charges from the benefit-based charge to the residual charge due to a reduction in the value of an <u>asset</u> for the purposes of the benefit-based charge, and reassignments and reassigned have equivalent meanings.</p> <p>regulatory asset base means, for a pricing year, the asset base used to determine forecast MAR for the pricing year.</p> <p>remaining life means, for a benefit-based investment, the benefit-based investment's expected economic life at the time the relevant clause of the TPM applies.</p> <p>residual charge means the charge as described in clause 39.</p> <p>TPM means the <u>transmission pricing methodology</u>.</p>	
	<p>transmission lines services has the meaning given to it in the IPP.</p>	<p>"Electricity transmission services", not "transmission lines services", is the defined term in the IPP. "Electricity lines services" (from which "electricity transmission services" in the IPP takes its meaning) is defined in the Commerce Act, but includes system operator services. Accordingly, this definition should be:</p> <p><i>transmission lines services means electricity transmission services (as defined in the IPP) excluding services performed by <u>Transpower</u> as <u>system operator</u>.</i></p>
30.	<p>transmission charges means the charges provided for by the TPM, as amended from time to time.</p> <p>upgrading expenditure has the meaning given to it in clause 30.</p>	



	<p>value of commissioned assets has the meaning given to it in the Commerce Commission's <i>Transpower Input Methodologies Determination 2010</i> [2012] NZCC 17, as amended from time to time.</p> <p>WACC means, for a pricing year, the pre-tax nominal weighted average cost of capital used to determine forecast MAR for the pricing year.</p>	
67.	<p>In these Guidelines, unless the context requires otherwise, any other term that is defined in Part 1 of the Code, and used but not defined in these Guidelines, has the same meaning as in Part 1 of the Code. Terms defined in Part 1 of the Code are underlined in these Guidelines.</p>	<p>Not all Code-defined terms are used in their Code sense in the guidelines. We propose this alternative drafting:</p> <p><i>67. In these Guidelines, unless the context requires otherwise:</i></p> <p class="list-item-l1">(a) <i>a reference to an indirect connection to the <u>grid</u> means a connection to the <u>grid</u> through one or more other <u>networks</u>; and</i></p> <p class="list-item-l1">(b) <i>underlined terms have the same meaning as in Part 1 of the Code.</i></p>


Schedule 1 Annual benefit-based charges for the benefit-based investments

	Bunnythorpe-Haywards	HVDC	LSI Reliability	LSI Renewables	North Island grid upgrade	Wairakei Ring	UNI dynamic reactive
Alpine Energy	3.11%	0.85%	1.49%	2.98%	0.30%	0.24%	0.30%
Aurora Energy	5.71%	1.57%	0.90%	4.48%	0.30%	0.27%	0.30%
Beach Energy Resources (Kupe)	0.03%	0.07%	0.10%	0.08%	0.03%	0.04%	0.03%
Buller Electricity	0.27%	0.08%	0.12%	0.20%	0.03%	0.02%	0.03%
Centralines	0.07%	0.21%	0.24%	0.17%	0.05%	0.01%	0.05%
Contact Energy	2.11%	12.55%	23.98%	0.09%	5.96%	21.25%	5.96%
Counties Power	0.32%	1.06%	1.08%	0.85%	2.62%	1.41%	2.62%
Daiken Southland	0.28%	0.09%	1.38%	0.28%	0.02%	0.02%	0.02%
Eastland Network	0.17%	0.35%	0.56%	0.41%	0.05%	0.00%	0.05%
Electra	2.70%	0.79%	0.95%	0.67%	0.16%	0.14%	0.16%
Electricity Ashburton	1.70%	0.51%	0.76%	1.71%	0.26%	0.15%	0.26%
Electricity Invercargill	2.26%	0.59%	0.27%	2.19%	0.14%	0.12%	0.14%
Electricity Southland	0.12%	0.04%	0.05%	0.07%	0.01%	0.01%	0.01%
Genesis Power	1.22%	3.23%	0.00%	0.03%	3.66%	7.64%	3.66%
Horizon Energy	0.31%	0.36%	0.59%	0.66%	0.05%	0.00%	0.05%



MainPower	3.21%	0.88%	1.28%	2.95%	0.24%	0.20%	0.24%
Marlborough Lines	2.03%	0.45%	0.87%	1.87%	0.15%	0.12%	0.15%
Mercury	0.62%	0.00%	0.00%	0.00%	6.14%	10.53%	6.14%
Meridian	0.23%	33.70%	1.10%	0.05%	7.35%	0.00%	7.35%
Methanex	0.03%	0.06%	0.09%	0.07%	0.03%	0.04%	0.03%
Nelson Electricity	0.28%	0.06%	0.12%	0.23%	0.02%	0.02%	0.02%
Network Tasman	3.06%	0.71%	1.42%	2.57%	0.22%	0.18%	0.22%
Network Waitaki	1.13%	0.36%	0.52%	2.16%	0.13%	0.08%	0.13%
New Zealand Rail	0.04%	0.07%	0.10%	0.08%	0.20%	0.12%	0.20%
Nga Awa Purua JV	0.00%	0.00%	0.00%	0.00%	0.97%	8.00%	0.97%
Ngatamariki Geothermal	0.01%	0.00%	0.00%	0.00%	0.59%	4.86%	0.59%
Norske Skog	0.00%	0.00%	0.00%	0.00%	0.18%	2.47%	0.18%
Northpower	0.67%	1.13%	2.16%	1.78%	5.98%	2.90%	5.98%
Nova	0.10%	0.00%	0.00%	0.00%	0.21%	0.00%	0.21%
NZ Steel	0.30%	0.50%	0.96%	0.85%	2.47%	1.33%	2.47%
NZ Aluminium Smelters	22.04%	7.25%	2.12%	23.59%	1.61%	1.61%	1.61%
Orion	18.22%	4.88%	7.16%	14.69%	1.15%	1.00%	1.15%
OtagoNet JV	1.46%	0.41%	2.01%	2.03%	0.11%	0.11%	0.11%
Pan Pacific Forest Products	0.35%	0.47%	0.76%	0.69%	0.10%	0.00%	0.10%



Port Taranaki	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Powerco	4.02%	6.25%	8.55%	6.70%	1.91%	3.58%	1.91%
Resolution Developments	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%
Scanpower	0.05%	0.15%	0.17%	0.12%	0.03%	0.03%	0.03%
Southdown Generation	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%	0.01%
Southern Generation	0.09%	0.01%	0.02%	0.16%	0.07%	0.64%	0.07%
Southpark Utilities	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
The Lines Company	0.16%	0.36%	0.47%	0.37%	0.18%	0.49%	0.18%
The Power Company	1.54%	0.34%	8.22%	2.04%	0.13%	0.12%	0.13%
Tilt Renewables	0.26%	0.01%	0.00%	0.00%	0.16%	0.00%	0.16%
Todd Generation Taranaki	0.24%	0.09%	0.00%	0.01%	0.26%	0.00%	0.26%
Top Energy	0.00%	0.24%	0.00%	0.00%	1.09%	0.51%	1.09%
TrustPower	0.01%	0.75%	0.00%	0.01%	0.16%	1.14%	0.16%
Tuaropaki Power	0.08%	0.06%	0.08%	0.07%	0.68%	0.13%	0.68%
Unison Networks	0.63%	1.34%	2.19%	1.60%	0.16%	0.00%	0.16%
Vector	5.51%	10.76%	18.95%	14.37%	51.26%	24.41%	51.26%
Waipa Networks	0.25%	0.59%	0.81%	0.64%	0.33%	1.01%	0.33%
WEL Networks	0.52%	1.13%	1.81%	1.41%	1.13%	2.36%	1.13%
Wellington Electricity	11.83%	4.24%	4.90%	3.21%	0.83%	0.65%	0.83%



Westpower	0.40%	0.09%	0.21%	0.46%	0.05%	0.03%	0.05%
Whareroa Cogeneration	0.10%	0.03%	0.00%	0.00%	0.02%	0.00%	0.02%
Winstone Pulp International	0.17%	0.29%	0.43%	0.36%	0.07%	0.00%	0.07%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%