meridian

MERIDIAN ENERGY CROSS SUBMISSION ON TRANSMISSION PRICING METHODOLOGY: ISSUES AND PROPOSAL CONSULTATION PAPER

28 March 2013

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EXECUTIVE SUMMARY

Key messages from submissions

1 Meridian Energy (*Meridian*) has distilled the key messages from the large number of submissions on the Electricity Authority's (*Authority*) proposed transmission pricing methodology (*TPM*). Those messages are:

1.1 there is widespread industry agreement that the current TPM is inefficient and can be improved;

1.2 very few stakeholders support a continuation of the HVDC charge in the face of the recent analysis showing that it is unprincipled and inefficient;

1.3 there is solid support for the application of beneficiary pays to transmission pricing;

1.4 a number of parties have concerns as to the complexity and volatility of the SPD charge, and the impact it might have on the wholesale market;

1.5 the proportion of the residual charge allocated to generation is out of step with international practice, has no economic basis, and accordingly is too high; and

1.6 the cost benefit analysis (*CBA*) in the proposal can be made more robust.

Implications for the Authority

2 As a result, the Authority is in a position where:

2.1 it must make a change to the current TPM to remove inefficiencies, particularly by a shift to treating the HVDC assets in the same way as other interconnection assets;

2.2 the starting point of the CBA should be that $30m of efficiency gains are available simply from folding the recovery of the costs of the HVDC link into the interconnection charge;

2.3 there is support for a closer adherence to beneficiary pays for transmission pricing than the current TPM provides;

2.4 more analysis of the SPD charge is required, both at a design level and to confirm the net efficiencies of the charge; and

2.5 the proportion of the residual charge allocated to generation needs to be reviewed and adjusted downwards. This will reduce the potential wholesale market distortions (with less transmission costs being recovered through wholesale prices) while still maintaining an incentive for generators to critically review transmission investment plans and costs.

Meridian continues to support the general direction of the Authority's proposal

3 Meridian continues to support the general direction set out in the Authority's proposal. In our earlier submission we recommended a number of modifications to

the proposal which meet some of the key concerns expressed by parties. These modifications are summarised in the following table.

Concern with Electricity Authority's interconnection charge proposal	Meridian's recommended modifications
SPD charge	
Risk of increased volatility in transmission charge	Shift billing cycle from ex post monthly to ex ante yearly (i.e. revert to concept of December Notice)
Increased complexity (less transparency and increased risk of disputes)	Reduce number of assets subject to the SPD charge to: • the largest four existing investments since May 2004 (HVDC pole 3, NIGUP, NAaN and the Wairakei Ring) plus HVDC pole 2; and • for new investments, the threshold for inclusion should be between \$50m and \$100m rather than \$2m. Authority to limit Transpower's operational discretion by specifying rules for the design of the charges in the TPM guidelines (for example, rules which specify the construction of the counterfactual in the SPD solve)
Impact on wholesale market	Shift to ex ante yearly billing cycle will reduce uncertainty of transmission charges for generators, and will therefore reduce any potential associated risk premium built into wholesale prices. It will also reduce the incentive to 'game' offer behaviour, given the one year lag in applying the outcome of the beneficiaries assessment
Risk of under-capturing benefits	Longer revenue capping period – weekly or monthly
Residual charge	
Proportion of residual charge allocated to generation too high	Determine allocation between generation and load from results of SPD method – likely to be around 25% allocation to generation, 75% to load
RCPI charge will disincentivise peaking generation	Change to MWh charge
Contract counterparties	
Risk of distributors breaching Commerce Act price path obligations due to increased volatility of transmission charges	Shift billing cycle from ex post monthly to ex ante yearly (i.e. revert to concept of December Notice)
Distributors opting out will increase transaction costs and negatively impact retail market	No distributor opt out Any SPD charge to retailers allocated to distributors for pass through

Suggested way forward

4 In terms of the way forward, Meridian recommends that:

4.1 the Authority release a modified proposal which retains the general direction set out in the original proposal but with improvements such as those recommended by Meridian and others;[1]

4.2 given that HVDC pricing has been identified as the main problem with the current TPM, Meridian suggests that an incremental option of folding the HVDC charge into the interconnection charge and securing the $30m of efficiency gains identified in several robust analyses to date is also compared to a modified proposal; and

4.3 the Authority not establish a "technical" working group, as given the TPAG experience this will not result in progress.

[1] See paragraphs 18-30 of this cross-submission.

AREAS OF AGREEMENT THAT CAN TAKE US FORWARD

5 Meridian has identified a number of areas where there is a significant amount of agreement between parties. These areas provide a baseline from which the Authority can progress the development of the new TPM.

HVDC charge is inefficient / support for consistent treatment of HVDC

6 One area of particularly extensive agreement is on the issue of the HVDC charge. Of those parties that took a position on the issue, a large majority agree that the HVDC charge is inefficient and support folding the recovery of the costs of the HVDC link into the interconnection charge.

7 The following table identifies those parties which agree the HVDC is inefficient and their submissions on the issue.

Submitting party	Comment
Mighty River Power	In terms of the HVDC, Mighty River Power agrees the current treatment is inefficient and has been the most contentious aspect of the TPM. A positive aspect of the proposal is the recognition that the HVDC link should no longer be treated as separate from other elements of the core grid.[2]
TrustPower	…there are net benefits for consumers in a transition to a common charging regime.[3]
Transpower	…there are acknowledged inefficiencies in the current methodology[4]… Pricing of the HVDC assets has always been contentious and there are incentive problems with the current HVDC charge.[5]
Contact Energy	We agree with the Authority that the HVDC [link] is no different to any other interconnection asset – transporting electricity from generators to consumers – and should be treated accordingly. We support the Authority's plan to include it in the SPD model. While South Island generators have always paid for the HVDC, this was only ever designed as a temporary measure and was a compromise that was agreed while a more robust pricing policy was developed. South Island generators have never agreed they alone should be liable for the HVDC link and it has always been foreseeable to market participants that at some stage they were likely to become liable for a share of that cost.[6]

[2] Mighty River Power *Submission to Electricity Authority's Transmission Pricing Methodology: Isues and Proposal Consultation Paper* (1 March 2013) *(Mighty River Submission)*, p. 28.

[3] TrustPower *Submission On Transmission Pricing Methodology Review – Issues and Proposal* (1 March 2013) (*TrustPower Submission*), p. 10.

[4] Transpower, Patrick Strange *Cover Letter: Transmission Pricing Methodology Consultation* (1 March 2013), p. 1.

[5] Transpower *Transmission Pricing Methodology: Submission on Issues and Proposals Consultation* (1 March 2013) (*Transpower Submission*), p.18.

[6] Contact Energy *Transmission Pricing Methodology: Submission to the Electricity Authority* (1 March 2013) *(Contact Energy Submission)*, p. 15.

Castalia (for Genesis)	The TPAG view (and the Authority's modelling) confirms that the HVDC charge in the current TPM is a significant source of inefficiency.[7]
Powerco	…if the Authority's prime objective is efficiency, it should roll the HVDC charge into the interconnection charge…[8]
Buller Electricity	[Buller] supports the EA's proposal to recover costs of the HVDC as part of the recovery of interconnection asset costs. …clearly the beneficiaries, and thus the users - those who derive value from the existence of the HVDC - extend far beyond just the South Island generators. It is important to bear in mind that although South Island generators actively export power to the North Island over the HVDC, North Island consumers just as actively import power over the HVDC in lieu of generating that power on the North Island from existing or additional power stations. This northwards flow is reversed in dry years when North Island generators export power and South Island consumers import. On that basis the proposal to treat the HVDC link as part of the interconnection assets makes eminent sense as the HVDC provides numerous benefits to the wholesale market.[9]
Clearwater Hydro	Agree the current HVDC charging regime can lead to inefficient behaviour. Spreading HVDC costs across the entire market will remove these incentives.[10]
Energy for Industry	Energy for Industry supports treating the HVDC as an integral part of the interconnection grid…[11]
Energy Link	We agree that the current TPM has some major problems in relation to the HVDC charge, in particular, which penalises SI generators while NI and SI consumers, and NI generators, also benefit from the presence of the link from time to time.[12]
NZCID	… we consider the existing approach to HVDC cost recovery to be suboptimal…[13]
NZ Geothermal Association	NZGA recognises that a case can be made that the HVDC link can be viewed as an essential part of the transmission backbone so should be included with other similar assets.[14]

[7] Castalia *Review of the Electricity Authority's Cost Benefit Analysis of the proposed Transmission Pricing Methodology: Report to Genesis Energy* (25 February 2013) (*Castalia Report*), p. 45.

[8] Powerco *Submission on Transmission Pricing Methodology: Issues and Proposal* (1 March 2013) (*Powerco Submission*), p. 15.

[9] Buller Electricity *Submission on Transmission Pricing Methodology Consultation Paper* (28 February 2013) (*Buller Submission*), pp. 8-9.

[10] Clearwater Hydro *Transmission Pricing Methodology Submission* (1 March 2013) (*Clearwater Hydro Submission*), response to Q9.

[11] Energy For Industry *Submission on Transmission Pricing Methodology: Issues and Proposal* (1 March 2013) (*EFI Submission*), p. 1.

[12] Energy Link *Submission on the Proposed Transmission Pricing Methodology* (February 2013) (*Energy Link Submission*), p. 1.

[13] NZ Council for Infrastructure Development *Submission on the Transmission Pricing Methodology Review* (1 March 2013) (*NZCID Submission*), p. 1.

[14] NZ Geothermal Association *Submission on Consultation Paper – Transmission Pricing Methodology Review – Issues and Proposal* (1 March 2013) (*NZ Geothermal Submission*), p. 6.

NZ Wind Energy	The proposed charging regime for the HVDC makes sense because increasingly the HVDC is becoming an integral part of the electricity system and will become more so with the Pole 3 upgrade.[15]
Pioneer Generation	Pioneer agrees with the Authority's proposal to define the HVDC assets as an integral part of the total transmission interconnection assets.[16]
Pulse Utilities	… the only key issue requiring fixing is the apportionment of HVDC charges.[17]
Smart Power	(In response to question 9-11) Agree this has been an issue with the existing charging regime which seems to be an unnecessarily blunt tool for allocating the cost of the HVDC and we agree that it is a distortion in generation investment decisions and the running of South Island plant. This has been an area of a major discontent for quite some time and not without reason.[18]

8 In Meridian's submission on the Consultation Paper, we noted that the question of whether the HVDC charge is inefficient has been settled:[19]

> We are now past the point of dispute about whether the HVDC charge is inefficient. Three separate analyses (TPAG, Authority review of TPAG using LRMC-stack model, and Authority GEM analysis) show the HVDC charge to be materially inefficient.

9 The weight of evidence and the fact of widespread industry agreement are conclusive. The Authority is required by the Electricity Industry Act – in particular its statutory objective in s 15 – to remove the inefficient HVDC charge.

Change to status quo is required

10 A large number of submitters also believe that a change to the status quo is necessary. The following table identifies those parties which believe a change to the status quo is necessary and their submissions on the issue.

Submitting party	Comment
Contact Energy	Contact agrees with the Authority that there is a problem with the current Transmission Pricing Methodology (TPM). Reaching a long-term solution on who should pay for transmission, and how much they should pay is problematic but nevertheless important to resolve.[20] … the status quo is discriminatory, unfair and inefficient… The Proposal addresses long-standing problems and known

[15] NZ Wind Energy Association *Transmission Pricing Methodology Submission* (28 February 2013) (*NZ Wind Energy Submission*), p. 1.

[16] Pioneer Generation *Submission on Transmission Pricing Methodology: Issues and Proposal* (1 March 2013) (*Pioneer Generation Submission*), p. 8.

[17] Pulse Utilities *Submission on Consultation Paper Transmission Pricing Methodology Review – Issues and Proposal* (1 March 2013) (*Pulse Utilities Submission*), p. 2.

[18] Smart Power *Submission on Transmission Pricing Methodology: Issues and Proposal Paper* (1 March 2013) (*Smart Power Submission*), p. 5.

[19] Meridian Energy *Submission on Transmission Pricing Methodology: Issues and Proposal Consultation Paper* (1 March 2013) (*Meridian Energy Submission*), p. 26.

[20] Contact Energy Submission, p. 3.

	inefficiencies with the TPM. The Authority must now secure a principled solution that can genuinely deliver the efficiency gains sought.[21] …we have identified three improvements to the Proposal which, if made, would ensure the Proposal achieves the efficiency gains it claims.[22]
Might River Power	…consistent with the conclusions from previous transmission reviews, we support the need for a focus on incremental reforms, primarily around resolving outstanding practical issues around the HVDC.[23]
TrustPower	…a decision needs to be made whether to retain the status quo or make a gradual transition to a common treatment of the HVDC and HVAC as proposed by TPAG. TrustPower agrees with the Authority that there are net positive benefits for consumers in a transition to a common charging regime.[24]
Genesis Energy	Genesis Energy agrees with the Authority that the current TPM is not perfect, and that there is ample room for improvement.[25]
ENA	The ENA nevertheless accepts there may be improvements to the existing TPM that are in the long-term interests of consumers.[26]
Pacific Aluminium	A transmission pricing methodology (TPM) should be fit for purpose, but the current one is clearly not.[27]
Energy Link	We agree that the current TPM has some major problems in relation to the HVDC charge, in particular, which penalises SI generators while NI and SI consumers, and NI generators, also benefit from the presence of the link from time to time.[28]
Pulse Utilities	We concur with the Electricity Authority's need to define a methodology that does not require future intervention and one that creates a market based approach.[29]
NZCID	NZCID accepts that the current pricing methodology does not accurately charge benefiters in relation to the proportion of the grid that they use, but generalises costs of the wider interconnection network to the load. In broad terms, we agree that the current methodology is in need of review.[30]
Auckland Chamber of	The Chamber notes that it is generally accepted by participants – generators, major users, retailers - that parts of the current cost

[21] Contact Energy Submission, p. 5.

[22] Contact Energy Submission, p. 17.

[23] Mighty River Submission, p. 13.

[24] TrustPower Submission, p. 10.

[25] Genesis Energy *Submission on Transmission Pricing Methodology: Issues and Proposal* (1 March 2013) (*Genesis Energy Submission*), p. 8.

[26] ENA *Submission on Transmission Pricing Methodology Consultation Paper* (1 March 2013) (*ENA Submission*), para 79.

[27] Pacific Aluminium *Submission on the Transmission Pricing Methodology: Issues and Proposal* (1 March 2013) (*Pacific Aluminium Submission*), p. 2.

[28] Energy Link Submission, p. 1.

[29] Pulse Utilities Submission, p. 1.

[30] NZCID Submission, p. 1.

Commerce	allocation process results in some inefficiencies and sub-optimal outcomes for producers and for customers. So change has been expected, particularly in relation to the way in which South Island generators (principally Meridian) are required to contribute to the costs of the HVDC (Cook Strait cable) part of the grid.[31]

11 For the Authority to act consistently with its statutory objective it must act to remedy the inefficiencies identified in the current TPM.

12 There are a number of possible solutions to the TPM problem, of which the Authority's proposal is one. Meridian supports the general direction set out in the proposal, and considers that it can be improved on by making the modifications suggested in Meridian's submission on the Consultation Paper.[32]

13 The fall-back option is not the status quo. At a minimum, a change must be made, as:

13.1 in the words of the Authority, it "is required to ensure the TPM is consistent with its statutory objective";[33] and

13.2 the evidence from several separate analyses clearly establishes that the status quo is inefficient, particularly in respect of the HVDC charge.[34]

14 Folding the HVDC charge into the interconnection charge is the minimum necessary change.

15 Nor is the fall-back option a so-called "incentive free" charge. An "incentive-free" charge is not, in fact, incentive-free, as it would undermine investment incentives across the electricity industry as investors would be concerned that an incentive-free charge could be applied to their investments in the future.[35] Such a charge would be inherently unstable and a regulatory failure.

Support for beneficiary pays

16 There is also significant support for or acceptance of the application of the beneficiary pays principle to transmission pricing, as the following table shows.

Submitting party	Comment
Genesis Energy	We are also in broad agreement with the principles of beneficiary pays, instilling robustness to avoid litigation over time and pursuing efficiency where appropriate.[36]
NZIER (for MEUG)	As economists we are attracted to the [interconnection] proposal because, conceptually, it is a better approach to the TPM than the

[31] Auckland Chamber of Commerce *Submission to the Electricity Commission on Transmission Pricing Methodology: Issues and Proposal* (1 March 2013) (*Auckland Chamber of Commerce Submission*), p. 1.

[32] Meridian Energy Submission, p. 49.

[33] Electricity Authority *Decision-Making and Economic Framework for Transmission Pricing Methodology: Decisions and Reasons Paper* (7 May 2012), p. 3.

[34] Meridian Energy Submission, pp. 26-30.

[35] Consultation Paper, para 6.6.21.

[36] Genesis Energy Submission, p. 42.

	status quo and if structured appropriately and implemented to be durable could improve the performance of the electricity sector. … we see merit in the idea of linking transmission pricing to the wholesale spot market.[37]
Mighty River Power	While we support the concept of beneficiary pays we note that successive reviews have considered whether it is possible to align costs with benefits to drive great efficiencies in usage of, and future investment in, the transmission network.[38]
Transpower	The Authority's proposed SPD charge is an innovative approach to targeting beneficiaries. We do not have any objection to aligning charges with beneficiaries in a workable and durable away.[39]
Buller Electricity	Buller supports the EA's preference for a beneficiaries-pay approach to the allocation of interconnection costs.[40]
Orion	We believe beneficiaries-pay could, conceptually and with a much longer term focus, be used to calculate reasonable shares of transmission cost. It may also be a useful tool to support major investment decisions…[41]
Unison	While we share the Authority's sentiment that it would be desirable that beneficiaries should more specifically pay for transmission investments and that it would be preferable to resolve once and for all the incidence of the HVDC charge, Unison submits that the Authority's proposed solution is likely to create un-intended consequences almost certainly worse than the problems it is seeking to solve.[42]
NZIER (for AECT)	While in theory the idea of relating costs to the beneficiaries is sound, the proof of the pudding is in the eating.[43]
Carter Holt Harvey	We do however, support the concept of beneficiary pays and so have attempted to highlight issues as we see them with both the general concept and implementation process along with some recommendations.[44]
Pacific Aluminium	Pacific Aluminium accepts that [the SPD method] is likely to be the most tractable method of applying a beneficiary-pays approach to the HVAC interconnection assets. Although an exacerbator-pays approach (like 'but for') is strictly preferable, we accept that it is much less tractable and therefore the SPD method appears to be a reasonable compromise at this stage.

[37] NZIER *Evaluation of EA Consultation Paper: NZIER Report to MEUG* (28 February 2013) (*NZIER Report to MEUG*), pp. iv and ii.

[38] Mighty River Submission, p. 55.

[39] Transpower Submission, p. 14.

[40] Buller Electricity Submission, p. 6.

[41] Orion *Submission on Proposed Changes to the Transmission Pricing Methodology* (1 March 2013) (*Orion Submission*), p. 19.

[42] Unison Networks *Submission on Electricity Authority's Transmission Pricing Methodology Proposal* (1 March 2013) (*Unison Submission*), p. 4.

[43] NZIER *Proposal by Electricity Authority: Consumer Issues – NZIER Report to AECT* (February 2013) (*NZIER Report to AECT*), p. 5.

[44] Carter Holt Harvey *Submission on Consultation Paper – Transmission Pricing Methodology: Issues and Proposal* (28 February 2013) (*CHH Submission*), p. 1.

	The SPD method is likely to be the most effective beneficiary-pays method for the HVAC interconnection assets. Although Professor Hogan's approach better mirrors what happens in contestable markets it is likely to be much more difficult to apply in practice. Fundamentally, the SPD method is a form of user-pays and generally such approaches have greater public acceptance.[45]
Nova Energy	Nova is in favour of exacerbator and beneficiary pays, but does not believe that the TPM proposal, as it stands, achieves that.[46]
NZX	The SPD charge is an innovative and novel proposal to recover interconnection and HVDC costs. It will allocate a substantial proportion of transmission costs to beneficiaries and, in so doing, may have the potential to improve efficiency over the status quo.[47]
NZCID	NZCID supports in principle the allocation of costs to those who use and benefit from investments. On the issue of transmission pricing, we therefore also support the principles pursued by the Authority.[48]

17 Support for the beneficiary pays principle is generally qualified with some concerns over the Authority's particular implementation of the principle by the SPD charge. We discuss these concerns below and identify some modifications to the Authority's proposal which meet these concerns.

SPD charge can be improved

18 There are concerns with the SPD charge that are shared by many submitters. Those concerns are:

18.1 that the SPD charge will increase volatility and uncertainty in transmission charges, and these potential effects will be difficult to manage for smaller parties;[49]

18.2 the SPD charge is too complex, which reduces transparency and increases the risk of disputes;[50]

18.3 that the SPD charge will distort the wholesale market through, for example, offer strategies to reduce the incidence of transmission charges;[51] and

18.4 the SPD charge will under-capture the benefits generated from a transmission asset.[52]

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[45] Pacific Aluminium Submission, pp. 4 and 18.

[46] Nova Energy *Submission on Transmission Pricing Methodology* (1 March 2013) (*Nova Energy Submission*), p. 1.

[47] NZX Energy *Submission – Transmission Pricing Methodology: Issues and Proposal* (1 March 2013) (*NZX Submission*), p. 1.

[48] NZCID Submission, p. 1.

[49] See, for example, Genesis Energy Submission, pp. 11-15; Fonterra *Submission to the Electricity Authority regarding the "Transmission Pricing Methodology: Issues and Proposal" Consultation Paper* (1 March 2013) (*Fonterra Submission*), pp. 6-7; NZ Steel *Submission on Transmission Pricing Methodology: Issues and Proposal* (1 March 2013) (*NZ Steel* Submission), p.6.

[50] See, for example, Mighty River Submission, pp. 7-8; Orion Submission, pp. 8-10.

[51] See, for example, Genesis Energy Submission, pp. 33-35; Buller Electricity Submission, p. 13.

[52] See, for example, Contact Energy Submission, pp. 8-9; CHH Submission, pp. 7-8.

19 In Meridian's submission on the Consultation Paper, we recommended a number of modifications to the Authority's proposal. Those changes meet the above concerns in the following ways:

19.1 *Reduce volatility and uncertainty:* Meridian recommends shifting from an ex post monthly billing cycle to an ex ante yearly billing cycle with charges based on historic market outcomes (i.e. based on the prior year's data[53]). This is similar to the current December Notice concept.

19.2 *Reduce complexity:* Meridian recommends reducing the number of assets subject to the SPD charge. The assets subject to the charge could be as follows:

(a) the largest four existing investments since May 2004 (HVDC pole 3, NIGUP, NAaN and the Wairakei Ring) plus HVDC pole 2; and

(b) for new investments, the threshold for inclusion should be between \$50m and \$100m rather than \$2m.

This simplification strikes a pragmatic balance by including the largest and most expensive investments where the main beneficiary (and therefore stability) concerns arise and where the material dynamic efficiency gains are possible with future investments, while at the same time reducing the complexity of the charge.

19.3 *Reduce risk of disputes:* Meridian recommends that decisions concerning the design of the SPD and residual charges that have a significant impact on transmission charges be made by the Authority and included in the TPM guidelines rather than left to Transpower's operational discretion. The design of the counterfactual in the SPD method is especially important in this regard.

19.4 *Accurately capturing benefits:* Meridian recommends that rather than revenue being capped in each half hour, a longer capping period should be adopted (i.e. weekly or monthly). This will ensure that benefits from transmission assets will be more accurately captured.

19.5 *Reduce wholesale market distortion:* A shift to an ex ante year billing cycle will reduce uncertainty of transmission charges for generators, and will therefore reduce any potential associated risk premium built into wholesale prices. It will also reduce the incentive to 'game' offer behaviour, given the one year lag in assessing beneficiaries. The imposition of a transmission charge will still flow through to the wholesale price, and this is arguably a static inefficiency. This must be compared to the dynamic efficiency gains generated by the proposal (discussed below).

[53] Alternatively, the Authority could use a longer time-frame and apply a rolling average.

20 Key features of Meridian's recommended modifications are supported in submissions:

20.1 Reduce the number of assets subject to SPD charge:

(a) "The volatility and complexity of the SPD model could be greatly improved by limiting the SPD pool to investments greater than $100 million. Capturing Pole 3, NAAN, NIGUP, Pole 2 and the Wairākei Ring Upgrade would reduce complexity and volatility whilst at the same time continue to recover from beneficiaries a significant proportion of the overall transmission costs of those projects" – Contact Energy;[54]

(b) "reduce assets to reduce distortion and undesirable wealth transfers" – Genesis Energy;[55]

(c) apply SPD charge only to the HVDC link – Castalia (for Genesis Energy);[56] and

(d) apply to "limited number of the largest transmission investments" – Transpower.[57]

20.2 Ex ante billing cycle:

(a) fix charges annually in advance – Transpower,[58] Smart Power;[59] and

(b) use a five-year trailing average to set charges that would be fixed for a year – Castalia (for Genesis).[60]

[54] Contact Energy Submission, p. 29.

[55] Genesis Energy Submission, p. 48.

[56] Castalia Report, p. 45.

[57] Transpower Submission, p. 11.

[58] Transpower Submission, p. 2.

[59] Smart Power Submission, p. 12.

[60] Castalia Report, p. 45.

20.3 Longer revenue capping period, with suggestions ranging from daily to monthly – Contact Energy,[61] Genesis Energy,[62] NZIER (for MEUG),[63] Mighty River,[64] Orion Energy,[65] Pacific Aluminium,[66] PwC,[67] Transpower,[68] TrustPower,[69] Waipa Networks.[70]

Residual charge can be improved

21 There are also some concerns with the residual charge that are shared by a number of submitters:

21.1 the proportion of the residual charge allocated to generation is too high – it is out of step with international practice and has no economic basis;[71] and

21.2 an RCPI charge to generation will disincentivise peaking generation.[72]

22 Meridian's recommended modifications to the Authority's proposal meet these concerns in the following ways:

22.1 allocate the residual charge based on a run of the SPD method. This will likely result in an allocation of approximately 25% to generation and 75% to load; and

22.2 make the residual charge to generation a MWh charge.

23 Key features of Meridian's recommended modifications are supported in submissions:

23.1 Allocate a greater proportion of the residual charge to load. Suggestions range from a 75% to 100% allocation to load – Clearwater Hydro,[73] Contact Energy,[74] Genesis Energy,[75] Castalia (for Genesis),[76] Mighty River,[77] NZ

[61] Contact Energy Submission, p. 9.

[62] Genesis Energy Submission, p. 47.

[63] NZIER Report to MEUG, p. 30.

[64] Mighty River Submission, Appendix C, p. 10.

[65] Orion Submission, p. 4.

[66] Pacific Aluminium Submission, p. 7.

[67] PwC *Submission to the Electricity Authority on Transmission Pricing Methodology: Issues and Proposal* (1 March 2013) (*PwC Submission*), p. 10.

[68] Transpower Submission, pp. 19-20.

[69] TrustPower Submission, p. 26.

[70] Waipa Networks *Submission on Transmission Pricing Methodology: Issues and Proposal* (1 March 2013) (*Waipa Networks Submission*).

[71] See, for example, Transpower Submission, p. 15.

[72] See, for example, Genesis Energy Submission, p. 36.

[73] Clearwater Hydro Submission.

[74] Contact Energy Submission, p. 20.

[75] Genesis Energy Submission, p. 49.

[76] Castalia Report, p. 46.

[77] Mighty River, pp. 81-83.

Geothermal Association,[78] Orion Energy,[79] Pioneer Generation,[80] Powerco,[81] Pulse Utilities,[82] Smart Power,[83] Transpower,[84] TrustPower,[85] Unison,[86] Waipa Networks;[87] and

23.2 Support for MWh charge to generation – Powerco,[88] TrustPower.[89]

Contract counterparties

Embedded generation

24 Meridian notes that some parties are concerned about the impact of the proposal on embedded generation. Meridian continues to believe that, in principle, embedded generation above a capacity threshold[90] should be subject to the SPD and residual charges.

25 However, given the widespread concern and potentially large financial effects, Meridian suggests that the Authority further investigate the impact of the proposal on embedded generation.

Distributor opt-out

26 A number of parties have expressed concern at the prospect of having retailers as transmission customers under the proposal. The common objections are that this will increase transaction costs for retailers (and Transpower and embedded generators), will make it harder for retailers to do business, and may hinder retail competition.[91]

27 Meridian recommended that retailers should not be transmission customers in its submission on the Consultation Paper. Accordingly, distributors should not be able to opt-out of the residual charge and any SPD charges to retailers should be allocated to distributors for them to pass through.[92]

28 The following parties agreed that distributors should not be able to opt out – Clearwater Hydro,[93] Contact Energy,[94] Energy for Industry,[95] Genesis Energy,[96]

[78] NZ Geothermal Submission, p. 6.

[79] Orion Submission, p. 20.

[80] Pioneer Generation Submission, p. 3.

[81] Powerco Submission, p. 16.

[82] Pulse Utilities Submission, p. 2.

[83] Smart Power Submission, pp. 14-15.

[84] Transpower Submission, p. 15.

[85] TrustPower Submission, p. 33.

[86] Unison Network Submission, pp. 14-16.

[87] Waipa Networks Submission.

[88] Powerco Submission, p. 18.

[89] TrustPower Submission, p. 33.

[90] In Meridian's Submission on the Consultation Paper (at p. 46), we recommended a threshold of 10MW given wholesale market obligations apply at 10MW.

[91] See, for example, Genesis Energy Submission, pp. 21-32.

[92] Meridian Energy Submission, pp. 47-48.

[93] Clearwater Hydro Submission.

[94] Contact Energy Submission, p. 32.

Castalia (for Genesis Energy),[97] Mighty River,[98] Nova Energy,[99] Pioneer Generation,[100] Smart Power,[101] Transpower,[102] TrustPower.[103]

29 Meridian also notes a related concern of distributors that the perceived increase in volatility and uncertainty of transmission charges may put them at risk of breaching their price path obligations under the Commerce Act.[104]

30 This concern can be met by Meridian's recommendation to implement an ex ante yearly billing cycle (reverting to December Notice concept), which will ensure distributors know their transmission charges for the year in advance.

Summary of recommended modifications

31 We summarise the concerns with the Authority's interconnection charge proposal and Meridian's recommended modifications in the following table.

Concern with Electricity Authority's interconnection charge proposal	Meridian's recommended modifications
SPD charge	
Risk of increased volatility in transmission charge	Shift billing cycle from ex post monthly to ex ante yearly (i.e. revert to concept of December Notice)
Increased complexity (less transparency and increased risk of disputes)	Reduce number of assets subject to the SPD charge to: • the largest four existing investments since May 2004 (HVDC pole 3, NIGUP, NAaN and the Wairakei Ring) plus HVDC pole 2; and • for new investments, the threshold for inclusion should be between \$50m and \$100m rather than \$2m. Authority to limit Transpower's operational discretion by specifying rules for the design of the charges in the TPM guidelines (for example, rules which specify the construction of the counterfactual in the SPD solve)
Impact on wholesale market	Shift to ex ante yearly billing cycle will reduce uncertainty of transmission charges for generators, and will therefore reduce any potential associated risk premium built into wholesale prices. It will also

95 EFI Submission, p. 1.

96 Genesis Energy Submission, pp. 51-52.

97 Castalia Report, p. 46.

98 Mighty River Submission, p. 85.

99 Nova Energy Submission, answer to Q27.

100 Pioneer Generation Submission, p. 13.

101 Smart Power Submission, p. 12.

102 Transpower Submission, p. 8.

103 TrustPower Submission, p. 33.

104 See, for example, ENA Submission, p. 21.

	reduce the incentive to 'game' offer behaviour, given the one year lag in applying the outcome of the beneficiaries assessment
Risk of under-capturing benefits	Longer revenue capping period – weekly or monthly
Residual charge	
Proportion of residual charge allocated to generation too high	Determine allocation between generation and load from results of SPD method – likely to be around 25% allocation to generation, 75% to load
RCPI charge will disincentivise peaking generation	Change to MWh charge
Contract counterparties	
Risk of distributors breaching Commerce Act price path obligations due to increased volatility of transmission charges	Shift billing cycle from ex post monthly to ex ante yearly (i.e. revert to concept of December Notice)
Distributors opting out will increase transaction costs and negatively impact retail market	No distributor opt out Any SPD charge to retailers allocated to distributors for pass through

32 These modifications will retain the incentives for parties to scrutinise transmission investment, particularly for generators. This is because:

32.1 increasing the investment cost threshold for assets subject to the SPD charge to between $50m and $100m will ensure scrutiny is applied to those assets where the largest dynamic efficiency gains are possible; and

32.2 reducing the proportion of the residual charge allocated to generation should not significantly dull the incentives generators face to scrutinise assets, as the cost allocated will still be sufficiently large to warrant scrutiny.

THE COST BENEFIT ANALYSIS

Starting point for CBA is that $30m of efficiency gains are available from folding the HVDC charge into the interconnection charge

33 Meridian notes that a number of submissions criticise the Authority's CBA.

34 The starting point of the CBA should be that $30m of efficiency gains are available simply from folding the recovery of the costs of the HVDC link into the interconnection charge.[105] These efficiency gains have been thoroughly assessed, are uncontroversial, and are easily captured.

General observations about the CBA

35 The Authority has signalled it is re-working its proposal and the CBA.[106] In light of that, we make in this submission some observations that are relevant to the further work being done on the CBA.

36 Our starting point is that a CBA is not a scientific exercise. It is not a device whereby a regulator can delegate decision-making to a machine or a formula. A CBA will be high level in parts, quantify and estimate where it can and use qualitative analysis where it cannot. The primary value of a CBA is that it provides a framework that makes transparent the competing considerations being weighed by the regulator, so that stakeholders can debate the weighing exercise.

37 So while the industry cannot expect scientific precision, it can expect robust analysis. The TPAG analysis, Authority review of TPAG using LRMC-stack model, and Authority GEM analysis completed for the HVDC charge all demonstrate that is possible in the TPM context.

38 If further work is being done on the CBA, then Meridian submits the Authority should have regard to how the modifications we outlined in our 1 March 2013 submission might impact on the CBA.

39 This is summarised in the preceding section of this cross-submission. The modifications recommended by Meridian will:

39.1 reduce static inefficiency: reduce uncertainty and volatility (and any associated risk premium), reduce gaming risk, remove the disincentive to peaking generation, remove risk of reducing retail competition;

39.2 reduce transaction costs: reduce cost to Transpower, reduce complexity, reduce potential for disputes, remove costs associated with retailers being counterparties; and

39.3 increase durability and stability: better identification of beneficiaries, better allocation of residual charge.

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105 Consultation Paper, paras C303-307.

106 Comments by Bruce Smith, General Manager Market Performance, Electricity Authority at Downstream Conference – see Energy News *EA to Revisit Cost-benefit on TPM; Industry Bemoans Regulatory Burden* 7 March 2013.

40 In relation to dynamic efficiency, the modifications recommended by Meridian would retain the incentives that the Authority (correctly) believes will lead to increased scrutiny of transmission investment. Generators will be able to anticipate the effect of an increase in their SPD charge, and will bring their expertise and resources to assist the Commerce Commission in scrutinising the investment proposal.

41 The sums of money are sufficiently large that a generator will invest in informing the Commerce Commission as to the appropriate timing and scale of investment (including reliability investments) in a way that generators currently do not. And the scale of investment is such that systematic improvements in the timing and scale of transmission investment will lead to dynamic efficiency gains.

WHAT SHOULD HAPPEN NOW?

Meridian recommends a modified proposal and fresh consultation

42 Meridian considers that the Authority should modify its proposal and conduct a fresh consultation.

43 In this cross submission we have summarised our recommended modifications to the Authority's proposal which would meet some of the concerns of submitters. While we believe that these modifications improve the proposal, we acknowledge that they are not the silver bullet for all issues raised. Improvements are likely to be possible elsewhere (including from suggestions in other submissions).

44 A modified proposal and fresh consultation will provide parties with the opportunity to comment on the modifications and a window for the Authority to make improvements to its proposal.

45 Including another option in the consultation paper could also encourage a more constructive response, where parties weigh up the pros and cons of the options and put forward recommendations. Meridian suggests the following options should be consulted on:

45.1 a modified proposal which retains the general direction set out in the original proposal but with improvements such as those recommended by Meridian and others; and

45.2 recover the costs of the HVDC link by folding it into the interconnection charge.

46 Meridian also notes the Authority is contemplating holding a public conference. We think that this could be a useful way to air the key issues with the Authority's proposal.

Technical working group will not result in progress

47 Some submitters have called for the Authority to establish a technical working group to resolve the TPM problem. Meridian does not believe that a technical working group will result in progress. TPAG was valuable but there are unlikely to be any gains over and above what TPAG achieved.

48 Meridian believes that the resolution of the TPM problem is a matter that the Authority needs to continue to drive forward and Meridian looks forward to the industry achieving a durable long term resolution.