

Submission on the Proposals Paper

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1 General comments

- 1.1 I congratulate the Electoral Commission on its Proposals Paper. Overall, I think the Commission's proposals are prudent and well-justified. I sincerely hope that they are adopted by Parliament.
- 1.2 I take this opportunity to thank the Commission again for considering my original submission earlier this year. Though the Proposals Paper differs from my original submission in many places, in general, I support all of the Commission's proposals. This submission does not, in general, address proposals raised in my original submission that were dismissed in the Proposals Paper or that were not mentioned in it.
- 1.3 **Abolition of electorate seat threshold.** In particular, I am thrilled that the Commission has proposed the abolition of the electorate seat threshold. I believe this is the single biggest issue eroding public confidence in the MMP system. I am also pleased that the Commission dismissed mitigation of the high party vote threshold as a reason for retaining it, noting that the electorate seat threshold applies that mitigation arbitrarily and unfairly.
- 1.4 The Commission will recall that I advocated as low a threshold as possible, ideally no threshold (with a modified first Sainte-Laguë divisor). I am pleased that the Commission has proposed lowering the threshold to 4 per cent. However, I still reiterate my calls for the threshold to be lower—at least to 3 per cent, if the Commission is unsympathetic to arguments about effective government not being affected—in order that the effects on minor parties of abolishing the electorate seat threshold can be properly mitigated.
- 1.5 **Other issues.** As I have said, I think the Commission's Proposals Paper is very well done. There are, however, two issues in particular I would like to bring to the Commission's attention. The issues are both technical in nature and my recommendations do not contradict any reasons of principle given in the Proposals Paper. To summarise:
- 1.6 *Overhang.* I recommend in section 2 that the Commission's proposal to abolish overhang seats for parties not crossing the party vote threshold should be extended to all parties, including those that do cross the party vote threshold. This would be simpler and more consistent. It is unclear to me why the abolition needed to be restricted to parties not crossing the threshold.
- 1.7 *Electorate-to-list seats ratio.* There are two changes to the analysis in Appendix G of the Commission's Proposals Paper that I recommend in section 3, but it so happens that they cancel each other out so the end result for the point of unacceptable risk is still 76 electorate seats.
- 1.8 I urge the Commission to consider these issues carefully. The remaining two sections deal with them in turn.

2 Overhang

2.1 Recommendation

- 2.1.1 The Commission’s proposal to abolish overhang seats “for parties that do not cross the party vote threshold” should be amended to either—
- (a) abolish overhang seats for **all** parties, regardless of whether they cross the party vote threshold, or
 - (b) retain overhang seats for parties that do not cross the party vote threshold but won more electorate seats than what would be their proportional entitlement if there was no threshold. (This is the method that I proposed in my original submission.)
- 2.1.2 Given that the Commission did not take the (b) proposal from my original submission, I expect that the Commission would likely view (a) more favourably.

2.2 Explanation

- 2.2.1 The Commission is right to note that it would make no sense for parties that do not cross the party vote threshold to be awarded all their electorate seats as overhang seats. However, the solution proposed by the Commission in its Proposal Paper is unsatisfactory.
- 2.2.2 Specifically, it is not clear to me why the Commission felt the need to restrict the abolition of overhang to parties that do not cross the party vote threshold. The Commission did not, as far as I can tell, give reasons in its Proposal Paper why parties that do cross the party vote threshold should not be treated in the same way.
- 2.2.3 To illustrate why it is unsatisfactory to draw that distinction, consider this hypothetical scenario. Party X is polling close to the party vote threshold, but it is certain that it will win seven electorates. If Party X attains 3.99% of the party vote, then all seven of its electorate seats will be non-overhang seats, *i.e.* removed from the Sainte-Laguë allocation.
- 2.2.4 However, if Party X attains 4.01% of the party vote, then under the Commission’s proposal it will be awarded its proportional entitlement of about five seats. But since it won seven electorates, it will also be awarded two overhang seats.
- 2.2.5 For the other parties, this means that if Party X wins 3.99% of the party vote, then 113 seats are available for the other parties. But if Party X wins 4.01% of the party vote, then 115 seats are available for the other parties. In effect, whether two MPs are elected from the lists of *other* parties (and whether there are two overhang seats) depends solely on whether Party X crosses the party vote threshold.
- 2.2.6 This is a counter-intuitive situation that is easily rectified. Two remedies are given below.
- 2.2.7 **Remedy by abolishing overhang completely.** The most obvious solution is simply to abolish overhang completely. That is, if any party wins more electorate seats than its proportional entitlement, then all of its electorate seats are given as non-overhang seats. Its Sainte-Laguë quotients are all disregarded, and the number of quotients allocated is reduced by the number of electorates won by that party. (This would always apply to parties not crossing the party threshold.)
- 2.2.8 This is the simplest solution. It would also mean that the size of Parliament is *always* 120, regardless of electorate outcomes. Most importantly, it would mean that Party X crossing the

threshold in our earlier example does not mean two more list MPs from other parties are suddenly elected.

- 2.2.9 **Remedy by retaining overhang when electorates exceed what would be proportional entitlement.** The Commission may recall that, in my original submission, I had considered this exact situation and made a different proposal in section 1.4 of that submission. The procedure I proposed is outlined in paragraph 1.4.9 of that submission.¹
- 2.2.10 I continue to propose that procedure. The Commission evidently did not share my view of it.
- 2.2.11 Its complexity may have been problematic. The result is intuitive: parties receive overhang seats if they win more electorate seats than their proportional entitlement, but receive no list seats if they win fewer electorate seats. But the procedure involved is admittedly lengthy.
- 2.2.12 If that is the Commission's reason for rejecting that method, I urge the Commission to abolish overhang outright. It should do this for the sake of consistency and simplicity, and to avoid counter-intuitive situations like the one I outlined above.
- 2.2.13 **Lack of practical effect not a reason against abolishing overhang outright.** The reader may note that the hypothetical situation I have given is very unlikely, because it is unlikely that any party crossing the party vote threshold will win so many electorate seats that it requires overhang.
- 2.2.14 If that is the case, then that is another reason *for* abolishing overhang outright, not against it. If it will make no difference to outcomes, then there is no harm in abolishing overhang for parties that do cross the party vote threshold. Then the only factors to consider are more holistic ones, like simplicity and consistency.
- 2.2.15 The Commission acknowledged simplicity in its Proposal Paper when it noted its proposal to partially abolish overhang "would also simplify the MMP system." Fully abolishing overhang would simplify it further. It would remove another "if-then" in explaining the MMP system. The size of Parliament would be truly constant.
- 2.2.16 The purpose of the party vote threshold is to draw a line between parties that are entitled to list seats, and parties that are not. In principle, as far as possible, the system should treat parties consistently in every other respect. It is not desirable for the existence or otherwise of overhang to be dependent on whether a party crosses the threshold.
- 2.2.17 For those reasons, unless the Commission wishes to reconsider the proposal in section 1.4 of my original submission, I recommend that the Commission amend its proposal to abolish overhang seats for parties that do not cross the party vote threshold, to abolish overhang seats for all parties.

¹ For the convenience of readers who may be reading this online, that submission is available at <http://www.mmpreview.org.nz/submissions/full/chuan-zheng-lee-0>.

3 Ratio of list seats to electorate seats

3.1 Recommendation

- 3.1.1 Given that the numbers are approximate, a buffer should be applied to the final risk level calculated in Appendix G of the Proposals Paper. I suggest that the buffer be obtained by considering the situation where the limiting major party wins two more electorate seats.
- 3.1.2 The party vote percentage used in Appendix G of the Proposals Paper should be the percentage of the party vote **excluding** parties that did not win any seats.
- 3.1.3 The combination of the above two recommendations happen to cancel each other out, so the end result is still a point of unacceptable risk of 76 electorate seats.

3.2 Explanation

- 3.2.1 The Commission’s analysis in Appendix G of its Proposals Paper was intriguing. The Commission noted that the figures “are only approximate”. I replicated the analysis and considered if it could be made more precise. My conclusion was that I basically agree that only approximate numbers, of a similar level of confidence as the figures given in Appendix G, are viable.
- 3.2.2 **Applying a buffer to account for imprecision.** However, I note that despite the figures being only approximate, the Commission was satisfied to take a precise number from the analysis—namely, the 76 arising in from both 2002 and 1999 figures—and use it as the point of unacceptable risk.
- 3.2.3 If the numbers are only approximate, then there is presumably risk that overhang could occur *before* the number of electorate seats reaches the “risk” level given in Appendix G. Given that the “risk” level is based on results that have already happened once, and therefore would not be surprising for similar or perhaps slightly more extreme results to happen again, it would seem prudent to allow for a buffer above that risk level.
- 3.2.4 The amount of buffer is also inexact by nature, but I would suggest a buffer introduced by assuming the party in question, if it is a major party, wins two more electorate seats than it actually did in the election. This is somewhat arbitrary, but the idea is that it is only slightly likely that two more electorate seats may swing towards that party in another election, without an alleviating swing towards the same party in the party vote.²
- 3.2.5 I suggest different buffers for minor parties. These are explained in paragraph 3.3.4.
- 3.2.6 By my calculations, this would reduce the risk level to 73 seats for the 2002 election and 72 seats for the 1999 election. (These were the two elections where the 76-seat risk level was observed.)
- 3.2.7 **Party vote figures to use.** I notice that in the columns marked “PV%” in Appendix G of the Proposals Paper, the Commission appears to have used the percentage of the *total* party vote (including all parties).
- 3.2.8 I suggest that it would be more appropriate to use the percentage of the party vote **excluding** parties that were not awarded any seats, *i.e.* parties that did not cross either threshold in that election. This is because the votes of those parties do not factor into the Sainte-Laguë method

² Since each calculation considers only a single party in a single election, it is not necessary to consider the effect on (*i.e.* seats lost by) other parties, as that is not relevant to the calculation.

at all, so the effective party vote percentage *for the purpose of awarding seats* is the percentage of only those party votes for parties that were awarded seats.

- 3.2.9 For example, the National Party won 47.3% of the party vote in 2011 and was awarded 49.2% of the non-overhang seats. Its adjusted party vote figure, excluding parties not awarded any seats, was 49.0%, unsurprisingly closer to the seats awarded.
- 3.2.10 The difference that this makes is substantial. In the 2002 election, 4.9% of votes were for parties that did not gain seats; in 1999, some 6.0% of votes fall into this category.
- 3.2.11 By my calculations, this modification to the analysis would push the risk level up to 80 seats for the 2002 election and 81 seats for the 1999 election.
- 3.2.12 **Overall effect of modifications.** Applying both modifications to the analysis gives a risk level of 76 seats for the 2002 election, and 77 seats to the 1999 election. That is, the effects of the two modifications roughly cancel each other out, so the number of electorate seats at which the risk of overhang (or “seat-stealing” if overhang is abolished) becomes unacceptable stays at 76 electorate seats.

3.3 Revised table

- 3.3.1 In Table 1 I present the revised table taking into account the modifications explained in section 3.2.
- 3.3.2 The columns have the same meaning as the table in Appendix G of the Proposals Paper, so that table and this revised table are directly comparable. The colours of the circles in the “Risk” column have the same meaning as in Appendix G of the Proposals Paper.
- 3.3.3 The “PV%” column is revised to be the percentage of the party vote **excluding** parties that were not awarded any seats.
- 3.3.4 The “ES%” column is revised to add a buffer as follows:
- (a) For parties that won more than **six** electorate seats, this column pretends they won **two** more electorates than they did in that election (as described in paragraph 3.2.4).
 - (b) For parties that won more than **one** but not more than six electorate seats, this column does not change. This category mainly only affects the Māori electorate seats. In 2005, 2008 and 2011, the Māori Party invoked overhang anyway, so that result is not of interest to this analysis. In 1996 NZ First took a clean sweep of the five Māori electorate seats so we assume it is not possible to win any more; that leaves the seat of Tauranga as the only General electorate seat won by them, which we treat under paragraph (c) below.
 - (c) For parties that won exactly **one** electorate seat, this column does not change, on the basis that these seats were the “lifeline” for that party and there would not have been a potential electorate swing in that party’s favour in another electorate.
 - (d) For parties that won **zero** electorate seats, this column pretends that they won one electorate seat, on the basis that there may have been one electorate serving as the “lifeline” for that party.
- 3.3.5 It should be noted that the buffer described above applies to all parties, so the ES% columns will not add up to 100%.

- 3.3.6 The remaining two columns are calculated in the same way as in the Commission’s Proposals Paper, except that the “Risk” column is rounded to the nearest integer, not upwards as it appears to be in the Proposals Paper.
- 3.3.7 In general, the modifications increase (*i.e.* relax) the risk level for the minor parties, and decrease (*i.e.* make stricter) the risk level for the major parties.
- 3.3.8 For the minor parties, the ES% column is not generally changed (except where the party did not win an electorate, as explained in paragraph 1.8(d)), leaving the revised PV% column to relax the risk level.
- 3.3.9 For the major parties, it appears that the buffer applied to the ES% column in general has a greater impact than the revised PV% column, tightening the risk level, except in the two limiting cases, namely, Labour in the 1999 and 2002 elections.

Table 1: Revised calculations for level of risk to proportionality

Party	2011 (70 seats)				2008 (70 seats)				2005 (69 seats)			
	ES%	PV%	Ratio	Risk	ES%	PV%	Ratio	Risk	ES%	PV%	Ratio	Risk
National	62.9	49.0	1.28	● 93	61.4	46.1	1.33	● 90	47.8	39.6	1.21	● 99
Labour	34.3	28.4	1.21	●100	32.9	34.9	0.94	●127	47.8	41.6	1.15	●104
Green	1.4	11.4	0.12	●961	1.4	6.9	0.21	●579	1.4	5.4	0.27	●444
NZ First	1.4	6.8	0.21	●573					1.4	5.8	0.25	●480
Māori Party	4.3	1.5	2.90	● 41	7.1	2.4	2.92	● 41	5.8	2.1	2.70	● 44
Mana	1.4	1.1	1.28	● 94								
ACT	1.4	1.1	1.29	● 93	1.4	3.7	0.38	●314	1.4	1.5	0.94	●127
United Future	1.4	0.6	2.30	● 52	1.4	0.9	1.59	● 75	1.4	2.7	0.53	●224
J Anderton's Progressive Alliance					1.4	0.9	1.54	● 78	1.4	1.2	1.23	● 97

Party	2002 (69 seats)				1999 (67 seats)				2005 (65 seats)			
	ES%	PV%	Ratio	Risk	ES%	PV%	Ratio	Risk	ES%	PV%	Ratio	Risk
National	33.3	22.0	1.51	● 79	35.8	32.5	1.10	●109	49.2	36.6	1.35	● 89
Labour	68.1	43.4	1.57	● 76	64.2	41.2	1.56	● 77	43.1	30.5	1.41	● 85
Green	1.4	7.4	0.20	●610	1.5	5.5	0.27	●441				
NZ First	1.4	10.9	0.13	●904	1.5	4.5	0.33	●364	9.2	14.4	0.64	●188
Māori Party												
Mana												
ACT	1.4	7.5	0.19	●622	1.5	7.5	0.20	●603	1.5	6.6	0.23	●515
United Future	1.4	7.0	0.21	●582	1.5	0.6	2.62	● 46	1.5	1.0	1.62	● 74
J Anderton's Progressive Alliance												
Alliance					1.5	8.2	0.18	●662	1.5	10.9	0.14	●852