Victorian Electoral Commission VEC

Our ref: 9949

28 July 2008

Mr A. Somyurek MLC
Chairman - Electoral Matters Committee
Parliament House
Spring Street
Melbourne Vic 3000

Dear Mr Somyurek

Electoral Matters Committee

The Victorian Electoral Commission (VEC) agreed to provide further information regarding certain matters raised at the Electoral Matters Committee hearing on Thursday 24 July 2008.

Attached is information on the following matters for the Committee's consideration:

— South Australian Legislative Assembly – ticket statistics

— Western Metropolitan Region – 2006 State Election results

— Alternative proportional representation methods

— Political Donations and Disclosure

Please let me know if the VEC can be of any further assistance.

Yours sincerely

Steve Tully
Electoral Commissioner

Level 8, 505 Little Collins Street, Melbourne Vic. 3000 Tel (03) 9299 0520 Fax (03) 9629 8632 www.vec.vic.gov.au

VEC Response to Matters Raised EMC Hearing 24 July 2008

A. SOUTH AUSTRALIAN ELECTION STATISTICS

A question was asked regarding the number of electors participating in South Australian State elections that choose to vote "1" only on their lower house ballot paper.

The report from the South Australian Electoral Office for the 2006 State election states that of the 939,161 formal votes, 43,553 were ticket votes (4.64%). This figure includes ballot papers marked "1" only and ballot papers that have partial preferences recorded but comply as far as possible with a registered ticket.

B. WESTERN METROPOLITAN REGION COUNT DATA

The Committee requested a copy of the computer data file for the Western Metropolitan Region ballot papers for the primary count.

The VEC explained at the hearing that the data on this file is overwritten in the recount process but has provided the file from the recount to the Committee. This is consistent with the notion that a recount involves a fresh look at all ballot papers. This was explained to scrutineers prior to the commencement of the recount and is essentially the same procedure that took place for the lower house Ferntree Gully recount where every ballot paper was re-examined by two election officials in a deliberate manner under scrutiny. This is a more accurate arrangement than a recheck of bundles.

A copy of the provisional preference distribution reports for the primary count and the recount remain available and were distributed widely at the time.

Concern was raised about the change in the total votes from the primary count to the recount (-478) for Western Metropolitan Region.

The VEC has re-examined the information it has in relation to the count for Western Metropolitan Region and can confirm that the data and explanations provided in the Victorian Electoral Commission's Report to Parliament on the conduct of the 2006 State election are correct.

Part 2 of this report includes the full preference distribution reports for both the primary count and the recount for the Western Metropolitan Region – electronic copies can be provided if necessary.

Full descriptions of the primary count process, the recount process and comparisons between these counts are included on pages 80 – 86 of the VEC's report on the State election.

The following additional information is provided with this response to further assist the Committee.

Appendix 1 – Western Metropolitan reconciliation report – shows tracking of ballot papers from each office for the primary count and comparison with recount figures.

Appendix 2 – Batch reconciliation report sample – primary count – shows the number of ballot papers in batches for the primary count. The batches labeled *Single* – are below the line (BTL) batches and the batches labeled *Ticket* relate to above the line (ATL) batches. The VEC has not kept all pages in this report on file but provides copies of the pages that were kept to show the date and time of report generation, the total number of batches, all ticket batches and the total formal and informal ballot papers included across all batches. The final page of this appendix shows the first preference vote count by candidate for the primary count. This is a total of first preference votes ATL and BTL for each candidate and forms the first line of the preference distribution report.

Appendix 3 – Batch reconciliation report sample - recount – shows the number of ballot papers in batches from the recount in the same format as Appendix 2.

Summary of primary and recount processes

Below-the-line ballot-papers

1. There were 4 election offices managing the 11 districts in western metropolitan region.
2. Election managers sent all ballot papers marked below the line (BTL) and informal ballot papers to the Melbourne Exhibition and Convention Centre (MECC) for data entry.
3. At MECC checks were done to ensure that ballot papers from each voting centre/postal/early batch were accounted for and reconciled – then batched in preparation for data entry.
4. The preferences on the BTL ballot papers were data entered into the VEC's computer count application.

Above-the-line ballot papers

5. Election Managers faxed results for above the line (ATL) ballot papers to MECC for entry into the computer count application (the ballot papers remained in the election offices).
6. Some ATL ballot papers were identified during the checking of BTL and informal ballot papers at MECC – these are usually ballot papers that have been marked both ATL and BTL by the voter. These were added to the ATL results provided by the election offices.

Informal ballot papers

7. The total number of informal ballot papers was entered into the computer count application.

Provisional result

8. The provisional result was then determined – and a preference distribution report generated. Included in part 2 of the VEC's Report to Parliament.
   See Appendix 1 – for details of these ballot papers during the primary count process.
   See Appendix 2 for the primary count batch reconciliation report.

Recount

9. Once it was determined that a recount was required – all ATL ballot papers from each election office were securely transported to MECC.
10. At MECC the number of boxes was receipted and checked against the dispatch notice from the election office.
11. A full recount of ballot papers then took place at MECC. Refer to pages 82 – 86 of the VEC's report to Parliament for full details of this process including reasons why there is movement in primary count figures during the recount process.
12. All challenges to informal ballot papers were determined by the Electoral Commissioner.
13. At the completion of all re-checking, final BTL ballot papers were data entered into the computer count application
14. Final ATL figures were recorded as ticket batches in the computer application.
15. The recount result was determined – and the final preference distribution report generated. This report is also included in Part 2 of the VEC's Report to Parliament.
16. See Appendix 3 for the recount batch reconciliation report.

Court of Disputed Returns

17. Following the recount, it remained open for a person to petition the Court of Disputed returns.

Conclusion

18. The VEC expects that the margin following a recount can vary by +/- 0.1% from the margin observed at the primary count. Recounts are conducted in one location with a consistent team of staff and with decisions made on challenged ballot papers being made by one person, the Electoral Commissioner. The level of scrutiny at a recount is much higher. During the recount, counting errors from the primary count are identified – these are usually the result of manually counting large ballot papers. Sorting errors are also identified and consistent adjudication on challenged ballot papers lead to considerable movement of ballot papers during the recount process.
19. The VEC is fully confident that 478 ballot papers were not lost but were not accurately counted in the first place. Appendix 1 shows that counting variations between the provisional and recount results are evenly spread. The VEC also noted that key party officials tracked the recount closely, and privately predicted the outcome of the recount before the result was calculated by the computer.

C. ALTERNATIVE PROPORTIONAL REPRESENTATION COUNTING METHOD

The Committee requested the VEC provide them with a critique of the alternative proportional counting method known as the Weighted Inclusive Gregory Method (WIGM) of counting, also known as Immaculate Gregory Method. This proportional representation (PR) system has recently been adopted by Western Australia for their Legislative Council and local government elections.

The WIGM varies from the PR method used in Victoria for the State Legislative Council and local government elections in the way it calculates transfer value when distributing a surplus. It also varies from the Victorian model in the way it transfers ballot papers from excluded candidates.

A summary of the Western Australian proportional representation model prepared by the Western Australian Electoral Commission is provided (Appendix 4).

Victorian Proportional Representation

In Victoria, when distributing a surplus after a candidate has achieved quota, all ballot papers from the elected candidate are distributed to continuing candidates at a reduced value (transfer value) so that the total value distributed is equal to the surplus.

The transfer value is calculated by dividing the surplus by the total number of ballot papers held by the elected candidate, and all ballot papers from the elected candidate are passed on to continuing candidates at the same transfer value.

This means that ballot papers previously received by the elected candidate at a value of 1 will be passed on at a lower value during the surplus distribution. Ballot papers received by the elected candidate at an earlier surplus distribution or exclusion at a value less than one can potentially be passed on at a higher value during a subsequent surplus distribution.

Weighted Inclusive Gregory Method (WIGM)

Under WIGM, when distributing a surplus, consideration is given to the value at which the elected candidate received each ballot paper. The distribution of a surplus under this method, involves calculating a different transfer value for each bundle of ballot papers (of same value) held by the elected candidate.

The new transfer value is calculated using the formula:

$$\text{New transfer value} = \frac{\text{Surplus}}{\text{total votes (value)}} \times \text{previous transfer value.}$$

Other variations

The VEC is aware of a submission made by Mr van der Craats to the Committee regarding a similar counting method, but it is not clear if Mr van der Craats is proposing exactly the same rules that apply under WIGM.

There are a number of other variations that apply between PR systems in addition to the treatment of surplus. These include:

The calculation of quota which can be:

- Quota = Total formal votes/(Number of vacancies +1) + 1 (Droop method - used in Vic) or
- Quota = Total formal votes/number of vacancies (Hare method)

Method of exclusion

When distributing ballot papers from an excluded candidate, the method in which this is done can also vary. For example:

- Each bundle of ballot papers is distributed in the order received by the excluded candidate. This method is followed in Western Australia, Tasmania and South Australia; or
- Ballot papers with a first preference for the excluded candidate are distributed to the continuing candidates first, then bundles of ballot papers with the same value are amalgamated and distributed to the continuing candidates in order of highest value to lowest value. This method is applies in Victoria for both State LC and local government PR elections, Commonwealth Senate elections and the ACT Assembly elections.

A table summarizing the different proportional representation models that apply in Australian jurisdictions is included in Appendix 5. Data in this table has been sourced from the Electoral Council of Australia's website.

Implications of WIGM for Victoria

Impact on results

The VEC considers that the WIGM is a "purer" form of proportional representation than that which applies in Victoria. The question of whether the method would provide a different result than that obtained under the current Victorian model is a difficult one.

The VEC believes that in most cases, both models would deliver exactly the same result. However, there may be examples where a different result is obtained. Certainly examples where different results are delivered can be constructed but the possibility of these translating to a "real" situation is difficult to determine without more thorough analysis of preference data from real elections.

Impact on process

The WIGM is more complex, involves more calculations and distributions than the Victorian PR model.

The increased number of surplus distributions could lead to an increase in the loss of votes through fractional remainders under the WIGM.

In theory the distribution of preferences under WIGM could be done manually, but in practice, the process would be much slower and would involve a higher level of training for election officials conducting the count.

It would be reasonable to expect that all counts conducted under the WIGM are done so by computer. This would have implications for local government elections in Victoria where a number of smaller PR counts or counts for Municipalities who do not agree to conduct their count outside the Municipality, are currently conducted manually.

Distribution reports will be more complex under WIGM than they currently are under the Victorian PR system.

Implications for VEC systems

If WIGM was introduced in Victoria and the resulting legislation contained exactly the same elements as exist in Western Australia, the VEC may be able to adopt the Western Australian computer counting application to use for the conduct of such counts. This would depend on compatibility with the VEC's Election Management System (EMS).

Victoria's current EMS would need to be enhanced to allow integration of the Western Australian application. Extensive regression testing would need to conducted and further load testing would be required to ensure that the new application could withstand the larger parameters (voters and candidates) that apply in Victoria. The VEC would also need to ensure that the enhanced application was re-audited to verify that the enhanced code met with legislative requirements.

If WIGM was introduced in Victoria but varied from the Western Australian legislation, the VEC would need more complex enhancements to its Election Management System and the subsequent testing and auditing would also be more complex.

In either case, the VEC would not commence any work in this area until legislation had been passed by Parliament. Implementation of such a change for the 2010 State elections would be unlikely without the introduction of significant risk.

D. POLITICAL DONATIONS AND DISCLOSURE

The Victorian Electoral Commission (VEC) confirms that it would be pleased to provide information to the Committee on the administrative implications of any proposals the Parliament might consider should be administered by the Victorian Electoral Commission.

Primary Count

11 Dec 2006

Batch Reconciliation Report

State Election 2006

After Ticket Batches entered 373 – 384

Western Metropolitan Region

Monday, 11 December 2006

374,982 } TALLY MATCH
374,982 }

6:21:25PM

(Batches 1 – 384)

Ballot Paper Batches

BatchNbr	Type	Amount	Formality	Entered
1	Single	24,982	Informal	N
2	Single	50	Formal	Y
3	Single	50	Formal	Y
4	Single	50	Formal	Y
5	Single	50	Formal	Y
6	Single	49	Formal	Y
7	Single	47	Formal	Y
8	Single	49	Formal	Y
9	Single	49	Formal	Y
10	Single	50	Formal	Y
11	Single	48	Formal	Y
12	Single	48	Formal	Y
13	Single	48	Formal	Y
14	Single	47	Formal	Y
15	Single	50	Formal	Y
16	Single	48	Formal	Y
17	Single	48	Formal	Y
18	Single	48	Formal	Y
19	Single	45	Formal	Y
20	Single	49	Formal	Y
21	Single	50	Formal	Y
22	Single	49	Formal	Y
23	Single	49	Formal	Y
24	Single	48	Formal	Y
25	Single	50	Formal	Y
26	Single	50	Formal	Y
27	Single	49	Formal	Y
28	Single	46	Formal	Y
29	Single	29	Formal	Y
30	Single	50	Formal	Y
31	Single	48	Formal	Y
32	Single	49	Formal	Y
33	Single	50	Formal	Y

Ballot Paper Batches

BatchNbr	Type	Amount	Formality	Entered
314	Single	50	Formal	Y
315	Single	49	Formal	Y
316	Single	49	Formal	Y
317	Single	49	Formal	Y
318	Single	48	Formal	Y
319	Single	46	Formal	Y
320	Single	50	Formal	Y
321	Single	49	Formal	Y
322	Single	50	Formal	Y
323	Single	50	Formal	Y
324	Single	47	Formal	Y
325	Single	49	Formal	Y
326	Single	48	Formal	Y
327	Single	48	Formal	Y
328	Single	50	Formal	Y
329	Single	49	Formal	Y
330	Single	49	Formal	Y
331	Single	50	Formal	Y
332	Single	50	Formal	Y
333	Single	50	Formal	Y
334	Single	48	Formal	Y
335	Single	47	Formal	Y
336	Single	49	Formal	Y
337	Single	49	Formal	Y
338	Single	49	Formal	Y
339	Single	50	Formal	Y
340	Single	50	Formal	Y
341	Single	49	Formal	Y
342	Single	49	Formal	Y
343	Single	50	Formal	Y
344	Single	49	Formal	Y
345	Single	47	Formal	Y
346	Single	50	Formal	Y
347	Single	49	Formal	Y
348	Single	48	Formal	Y
349	Single	50	Formal	Y
350	Single	21	Formal	Y
351	Single	46	Formal	Y
352	Single	49	Formal	Y
353	Single	50	Formal	Y

Ballot Paper Batches

BatchNbr	Type	Amount	Formality	Entered
354	Single	48	Formal	Y
355	Single	50	Formal	Y
356	Single	47	Formal	Y
357	Single	50	Formal	Y
358	Single	50	Formal	Y
359	Single	49	Formal	Y
360	Single	48	Formal	Y
361	Single	50	Formal	Y
362	Single	49	Formal	Y
363	Single	49	Formal	Y
364	Single	50	Formal	Y
365	Single	49	Formal	Y
366	Single	48	Formal	Y
367	Single	50	Formal	Y
368	Single	49	Formal	Y
369	Single	49	Formal	Y
370	Single	49	Formal	Y
371	Single	34	Formal	Y
372	Single	43	Formal	Y
373	Ticket	3,918	Formal	Y
374	Ticket	42,216	Formal	Y
375	Ticket	42,450	Formal	Y
376	Ticket	42,450	Formal	Y
377	Ticket	42,450	Formal	Y
378	Ticket	42,450	Formal	Y
379	Ticket	45,000	Formal	Y
380	Ticket	44,808	Formal	Y
381	Ticket	3,679	Formal	Y
382	Ticket	3,189	Formal	Y
383	Ticket	13,982	Formal	Y
384	Ticket	30,600	Formal	Y

Formal Votes Entered : **374,982**

Informal Votes : **24,982**

Total Votes : **399,964**

374,982
357,192
17,790

Date: 11/12/2006
Time: 18:26

State Election 2006
Western Metropolitan Region

First Preference Vote Count - Computer Count

Batch no 2 to 384

JACKSON, Max	4755
WILLIAMS, Christine	318
MADDEN, Justin	217802
EIDEH, Khalil	624
PAKULA, Martin	400
BARLOW, Henry	733
ZANATTA, Lisa	615
FINN, Bernie	90882
REYNOLDS, Stephen	449
TSENG, Wayne	165
BITANS, Ann	187
BESHARA, Mark	3918
McCARTHY, Shane	102
LIVESAY, Robert	3540
CORIC, Danii	102
HOWE, Roger	117
ALP, Ashley	14540
NGUYEN, Anh	176
WALKER, Robert	157
SPATARO, Marie	81
SAN JOSE, Roger	85
HARTLAND, Colleen	33551
BUI, Nam	449
HUMPHREYS, Robert	469
INGHAM, Liz	511
TCHEKMEYAN, Nora	254
Total	374,982

Batch Reconciliation Report

Recount 14 Dec 2006
Single Batches 1 – 390
Ticket Batches – 391 – 405

State Election 2006

Western Metropolitan Region

Thursday, 14 December 2006

2:47:14AM

Tally } 374,411 – Formal votes entered.
374,411

Ballot Paper Batches

BatchNbr	Type	Amount	Formality	Entered
1	Single	25,075	Informal	N
2	Single	50	Formal	Y
3	Single	50	Formal	Y
4	Single	50	Formal	Y
5	Single	50	Formal	Y
6	Single	48	Formal	Y
7	Single	47	Formal	Y
8	Single	49	Formal	Y
9	Single	49	Formal	Y
10	Single	50	Formal	Y
11	Single	48	Formal	Y
12	Single	48	Formal	Y
13	Single	48	Formal	Y
14	Single	46	Formal	Y
15	Single	50	Formal	Y
16	Single	48	Formal	Y
17	Single	48	Formal	Y
18	Single	48	Formal	Y
19	Single	45	Formal	Y
20	Single	49	Formal	Y
21	Single	50	Formal	Y
22	Single	49	Formal	Y
23	Single	49	Formal	Y
24	Single	48	Formal	Y
25	Single	50	Formal	Y
26	Single	50	Formal	Y
27	Single	49	Formal	Y
28	Single	46	Formal	Y
29	Single	29	Formal	Y
30	Single	50	Formal	Y
31	Single	47	Formal	Y
32	Single	49	Formal	Y
33	Single	50	Formal	Y

Ballot Paper Batches

BatchNbr	Type	Amount	Formality	Entered
354	Single	48	Formal	Y
355	Single	50	Formal	Y
356	Single	47	Formal	Y
357	Single	50	Formal	Y
358	Single	50	Formal	Y
359	Single	49	Formal	Y
360	Single	48	Formal	Y
361	Single	49	Formal	Y
362	Single	49	Formal	Y
363	Single	49	Formal	Y
364	Single	50	Formal	Y
365	Single	48	Formal	Y
366	Single	48	Formal	Y
367	Single	50	Formal	Y
368	Single	49	Formal	Y
369	Single	49	Formal	Y
370	Single	49	Formal	Y
371	Single	34	Formal	Y
372	Single	43	Formal	Y
373	Single	42	Formal	Y
374	Single	47	Formal	Y
375	Single	50	Formal	Y
376	Single	49	Formal	Y
377	Single	50	Formal	Y
378	Single	50	Formal	Y
379	Single	50	Formal	Y
380	Single	50	Formal	Y
381	Single	48	Formal	Y
382	Single	50	Formal	Y
383	Single	50	Formal	Y
384	Single	49	Formal	Y
385	Single	50	Formal	Y
386	Single	50	Formal	Y
387	Single	41	Formal	Y
388	Single	29	Formal	Y
390	Single	1	Formal	Y
391	Ticket	3,905	Formal	Y
392	Ticket	35,000	Formal	Y
393	Ticket	35,000	Formal	Y
394	Ticket	35,000	Formal	Y

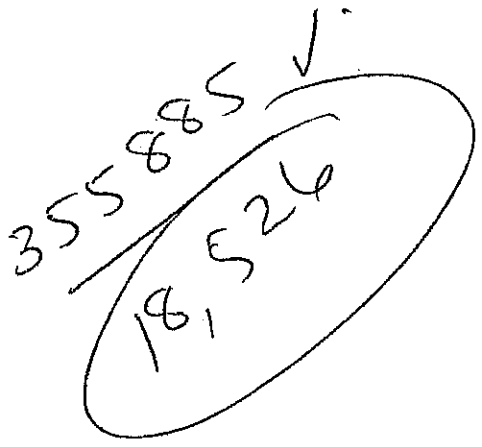
Ballot Paper Batches

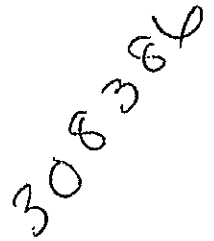
BatchNbr	Type	Amount	Formality	Entered
395	Ticket	35,000	Formal	Y
396	Ticket	35,000	Formal	Y
397	Ticket	36,122	Formal	Y
398	Ticket	35,000	Formal	Y
399	Ticket	35,000	Formal	Y
400	Ticket	19,689	Formal	Y
401	Ticket	3,670	Formal	Y
402	Ticket	1,580	Formal	Y
403	Ticket	1,580	Formal	Y
404	Ticket	13,918	Formal	Y
405	Ticket	30,421	Formal	Y

Formal Votes Entered : **374,411**

Informal Votes : **25,075**

Total Votes : **399,486**





Date: 14/12/2006
Time: 02:46

State Election 2006
Western Metropolitan Region

First Preference Vote Count - Computer Count

Batch no 2 to 405

JACKSON, Max	4770
WILLIAMS, Christine	328
MADDEN, Justin	217188
EIDEH, Khalil	659
PAKULA, Martin	432
BARLOW, Henry	775
ZANATTA, Lisa	652
FINN, Bernie	90785
REYNOLDS, Stephen	455
TSENG, Wayne	173
BITANS, Ann	191
BESHARA, Mark	3921
McCARTHY, Shane	108
LIVESAY, Robert	3514
CORIC, Danii	110
HOWE, Roger	117
ALP, Ashley	14499
NGUYEN, Anh	192
WALKER, Robert	161
SPATARO, Marie	87
SAN JOSE, Roger	93
HARTLAND, Colleen	33429
BUI, Nam	482
HUMPHREYS, Robert	489
INGHAM, Liz	532
TCHEKMEYAN, Nora	269
Total	374,411

Appendix 4

Proportional Representation Explained

for the

Legislative Council and Local Government in Western Australia

WESTERN AUSTRALIAN Electoral Commission

Introduction

Proportional representation (PR) is a type of vote counting system which can be used when there are multiple vacancies at an election. Under PR systems, candidates are elected on the proportion of the total vote that they receive. Preferences are transferred from elected or excluded candidates to continuing candidates in order to determine the most popular, or preferred, candidates.

In 1987 legislation was passed by the Western Australian Parliament for the introduction of PR for Legislative Council elections in multi-member regions. In 2007, 20 years later, PR was also made law for multiple ward elections in local government authorities. At the same time the PR formula was modified to the Weighted Inclusive Gregory Method (WIGM) for both the Legislative Council and Local Government.

The PR vote counting system is designed to ensure that vacant positions (or seats) are allocated as nearly as possible in proportion to the votes received. The principle is simple but the steps in the process can be complicated. While the steps help ensure that the system is fair, it may take longer to finalise the result.

This booklet provides a simple example of PR (WIGM), and then follows with a practical example of a count to elect four candidates.

The Count

Ballot papers are the pieces of paper showing voters' order of preferences. They are distributed during counts as first preferences, surpluses or exclusions. They have transfer values applied to them which either reduce or maintain their value. Under WIGM, the value of a ballot never increases.

Ballot papers at the first count have a value of 1.

Effective votes are the numbers of votes given to candidates once the appropriate transfer value has been applied to the ballot papers for that count. The running total of votes is used to determine whether or not a candidate has reached the quota and thus declared elected. Exclusions are also determined upon this tally.

For **exclusions** each parcel of ballot papers received by an excluded candidate at previous counts is distributed to continuing candidates at the transfer value at which the ballot papers were received. Each parcel is treated as a separate count on the count sheet.

If a candidate is **elected during an exclusion,** the exclusion is continued but no further ballot papers can be allocated to the elected candidate after the count at which they were elected.

Fractional remainders are ignored: i.e. 134.2855 votes resulting from a transfer of ballot papers is recorded as 134 votes. For the definition of **lost by fraction** see the glossary of PR terms at the back of the document.

When **surplus votes** are transferred, all the ballot papers received by the elected candidate at previous counts are transferred to continuing candidates at a reduced value (the transfer value). Each parcel of ballot papers received by the candidate is distributed to continuing candidates as a separate parcel.

If a candidate is **elected during a transfer of surplus votes**, this candidate continues to receive ballot papers from the transfer of surplus votes until the distribution of that surplus is complete.

If a candidate is **elected during a transfer of surplus votes** and there are surplus votes to distribute from this election, the surplus votes of candidates elected at an earlier count are distributed before the surplus of a candidate elected at a later count.

If a candidate is **elected with exactly a quota** and there is a further vacancy, the ballot papers of that candidate are set aside as finally dealt with.

If two or more candidates are **elected at the same count** the candidate with the greatest number of votes is taken to be the first elected. Also, the candidate's surplus votes are distributed first if further vacancies exist.

Transfer values and the distribution of surpluses. A surplus is distributed to continuing candidates by transferring all the ballot papers of the elected candidate. Each ballot paper is regarded as representing only a fraction of a vote, so that the total value of the transferred ballot papers is only equal to the number of votes in the surplus. This fractional value is the 'transfer value'.

Surpluses are transferred in parcels of votes and each parcel will be distributed using a transfer value (TV) calculated as follows:

$$\frac{\text{Elected candidate's surplus}}{\text{Total number of votes}} \text{ (Current TV)} \times \text{transfer value at which those ballot papers were received by the elected candidate (Previous TV)} = \text{new transfer value (TV)}$$

Ballot papers from an **excluded candidate** are transferred at the transfer value at which they were received. For example, the ballot papers received by the excluded candidate at the first preference count are distributed at a value of 1.

In the case of **tied candidates** the following can apply.

- If two or more candidates tie and one has to be excluded, exclude the candidate who had the fewest votes at the last count when they had a different number of votes. If there is no such count, the returning officer draws lots to determine which candidate is to be excluded.
- If two or more candidates have reached the quota with the same number of votes the order of election must be determined. The candidate who had the highest votes at the last count when they had a different number of votes will be elected before the other candidate(s). If there is no such count, the returning officer draws lots to determine the order of election.

The **drawing of lots** in any of the above situations is done by the returning officer in accordance with the procedure for:

- Legislative Council elections set out in Schedule 2 of the *Electoral Act 1907*; or
- Local Government elections set out in Regulation 30 of the *Local Government (Elections) Regulations 1997.*

The following are the basic steps taken where the Weighted Inclusive Gregory Method (WIGM) is used in an election.

STEP 1

Informal ballot papers are set aside.
First preference votes for each candidate on formal ballot papers are counted.

↓

STEP 2

Calculate the Quota (Q)

$$Q = \frac{\text{Valid votes}}{\text{Number of vacancies} + 1} + 1$$

↓

STEP 3

Candidates with votes equal to or greater than the quota are elected.
If all vacancies have been filled, the election is finished.
If some vacancies remain unfilled, the votes of elected candidates are examined to determine if any received more votes than the quota (surplus votes).

↔

If there are surplus votes to be distributed

↓

The elected candidate's surplus votes (those in excess of the quota) are distributed to candidates continuing in the count. They are distributed according to the next available preference marked on the ballot papers. All the elected candidate's ballot papers are examined and distributed at a transfer value (TV).

For ballot papers received from the elected candidate's first preference votes, the current TV is

$$\frac{\text{Number of surplus votes of elected candidate}}{\textbf{Total votes of elected candidate}}$$

For ballot papers received from previous surplus distributions, the TV is

current transfer value
X
previous transfer value

Total votes for each of the continuing candidates are calculated by multiplying the number of ballot papers to be transferred to a continuing candidate by the transfer value.

Step 3 is then revisited.

If there are no surplus votes to be distributed

↓

The candidate with the least votes is excluded from the count. That candidate's votes are distributed to continuing candidates according to the next available preference indicated on the ballot papers.

The votes of an excluded candidate are distributed to continuing candidates at the same transfer value as they were received.

Each continuing candidate's total votes are calculated, then:

- Step 3 is revisited, or
- If the number of continuing candidates is equal to the number of vacancies remaining unfilled, all those candidates are declared elected and the election is finished.

Note: A continuing candidate is one who has not yet been elected or excluded from the count.

The following pages demonstrate the WIGM count showing the full set of figures for an election with four vacancies. In the election 950 formal ballot papers have been lodged. The following process outlines each step taken to determine the four successful candidates.

The first step is to determine the quota (Q). Each candidate must receive a proportion of votes, or the quota, to be elected. This is done using the following equation:

$$Q = \frac{\text{Valid votes}}{\text{Number of vacancies} + 1} + 1$$

For this election the quota is as follows:

$$Q = \frac{950}{4 + 1} + 1 = 191$$

A candidate in this election will need to obtain at least 191 votes to be elected.

Count 1

Table 1: Count of Preferences and Distribution of Ballot Papers

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total ballot papers counted	Transfer value (TV)	Effective votes transferred to Table 2
1	First preference votes	207	162	116	151	146	168	950	1.0	950

Count 1 is the count of formal votes and the allocation of first preference votes to each candidate. No transfer values are applied to first preference votes, therefore the value of these votes equals one. There are 950 valid first preference votes. Table 1 shows the distribution of these votes to candidates, according to the way the electors have marked the ballot papers. Table 2 shows the tally of effective votes.

It is important to note that at this stage, the totals in the two tables are identical as no reduced fractional values (transfer values) need be applied to first preference votes. All ballot papers at the first count have a value of one. Therefore, the number of ballot papers equals the number of effective votes at the first count in the election.

Table 2: Distribution of Effective Votes

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total votes counted	Votes lost by fraction	Comments
1	First preference votes	207	162	116	151	146	168	950	n/a	Count of first preference distribution

Count 2

Table 1: Count of Preferences and Distribution of Ballot Papers

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total ballot papers counted	Transfer value (TV)	Effective votes transferred to Table 2
1	First preference votes	207	162	116	151	146	168	950	1.0	950
2	Candidate A surplus (from count 1)	Elected 1st	71	54	31	14	37	207	0.07729469	16
Total			233	170	182	160	205			

Candidate A elected

At the conclusion of count 1, Candidate A is the only candidate who has a number of votes (207) over the quota of 191, so is the first candidate to be elected.

Distribution of A's surplus votes

A surplus of 16 votes (207 minus 191) must be distributed. This is done by examining all of Candidate A's 207 ballot papers and distributing them to the next available preference marked on the ballot papers at a reduced value.

Transfer Value

This reduced value is the transfer value (TV). The transfer value is calculated as follows:

$$TV = \frac{\text{Number of surplus votes (see Table 2)}}{\text{Total number of votes received by the candidate (see Table 2)}} = \frac{16}{207} = 0.07729469$$

Note: Votes (Table 2), not ballot papers (Table 1), are used to determine the running total.

Count 2 continued

Table 2: Distribution of Effective Votes

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total votes counted	Votes lost by fraction	Comments
1	First preference votes	207	162	116	151	146	168	950	n/a	Count of first preference distribution
2	Candidate A surplus (from count 1)	-16	5	4	2	1	2	16	2	Parcel from first preference distribution
Total		191	167	120	153	147	170			

Allocation of surplus votes to each continuing candidate

To calculate the number of effective votes that each of the continuing candidates receives from A's surplus, the number of ballot papers showing a preference for them is multiplied by the transfer value. For example, Candidate B receives 71 ballot papers (Table 1) which, when multiplied by the transfer value, becomes five effective votes (Table 2) with one vote 'lost by fraction'.

Votes lost by fraction

This occurs when ballot papers with a next available preference for a particular continuing candidate are multiplied by the transfer value and the result is a number with a remainder. These remainders are ignored, no matter what the remainder may be. For count 2, there are a total of 2 'lost by fraction' votes.

No candidate elected at count 2

At the conclusion of count 2, Table 2 shows that no continuing candidate has achieved the quota. This means that a candidate must be excluded from the count. This is the candidate with the lowest number of votes, this is Candidate C. The following counts 3 and 3.1 show this exclusion.

Note: Votes (Table 2), not ballot papers (Table 1), are used to determine the running total.

Count 3

Table 1: Count of Preferences and Distribution of Ballot Papers

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total ballot papers counted	Transfer value (TV)	Effective votes transferred to Table 2
1	First preference votes	207	162	116	151	146	168	950	1	950
2	Candidate A surplus (from count 1)	Elected 1st	71	54	31	14	37	207	0.07729469	16
Total			233	170	182	160	205			
3	Candidate C exclusion (from count 1)		38	-116	38	22	18	116	1.0	116
Total			271	54	220	182	223			

Exclusion of Candidate C

When a candidate is excluded, all their ballot papers are distributed at the value at which they were received. Each parcel of ballot papers received by the excluded candidate from previous counts is distributed as a separate count.

As Candidate C received ballot papers from two previous counts (counts 1 and 2) they are distributed to continuing candidates in two separate parcels, as counts 3 and 4.

All the excluded candidate's ballot papers are distributed to the second available preferences indicated on the ballot paper.

Distribution of Candidate C's ballot papers received at count 1 (first parcel)

Count 3 shows the distribution of the parcel of ballot papers Candidate C received from count 1. As count 1 was the distribution of first preferences, they had a value of 1 and are therefore distributed at this value.

Count 3 continued

Table 2: Distribution of Effective Votes

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total votes counted	Votes lost by fraction	Comments
1	First preference votes	207	162	116	151	146	168	950	n/a	Count of first preference distribution
2	Candidate A surplus (from count 1)	-16	5	4	2	1	2	16	2	Parcel from first preference distribution
Total		191	167	120	153	147	170			
3	Candidate C exclusion (from count 1)	Elected 1st	38	-116	38	22	18	116	0	Parcel from first preference distribution
Total			205	4	191	169	188			

Distribution of effective votes at count 3

As the first parcel of Candidate C's ballot papers received from count 1 are transferred at a value of 1, the numbers of effective votes distributed are identical to that of the ballot papers distributed.

Two candidates have achieved the quota at end of count 3

At the end of count 3 both Candidates B and D have achieved the quota. They are elected second and third.

Not all the parcels of ballot papers from excluded Candidate C have been distributed, but as these two candidates achieved the quota after the distribution of the first parcel, they do not receive any more ballot papers.

No ballot papers to be transferred to elected candidates

Transfers of individual parcels of ballot papers from an excluded candidate are all individual and separate transfers (counts). No ballot papers can be transferred to an elected or excluded candidate after the transfer at which that election occurs.

Count 4

Table 1: Count of Preferences and Distribution of Ballot Papers

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total ballot papers counted	Transfer value (TV)	Effective votes transferred to Table 2
1	First preference votes	207	162	116	151	146	168	950	1	950
2	Candidate A surplus (from count 1)	Elected 1st	71	54	31	14	37	207	0.07729469	16
Total			233	170	182	160	205			
3	Candidate C exclusion (from count 1)		38	-116	38	22	18	116	1.0	116
Total			271	54	220	182	223			
4	Candidate C exclusion (from count 2)		Elected 2nd	-54	Elected 3rd	41	13	54	0.07729469	4
Total				0		223	236			

Distribution of Candidate C's ballot papers received at count 2 (second parcel)

Table 1 of count 4 shows the distribution of the second parcel of excluded Candidate C's ballot papers. These were ballot papers received by this candidate during count 2. There are 54 ballot papers in this parcel to be transferred to continuing candidates.

These ballot papers are distributed at a transfer value of 0.07729469, as this is the value at which they were received during count 2. Each of the 54 ballot papers in this parcel are examined and passed onto the next available preference at this value. This results in four effective votes being transferred as shown in Table 2 on the following page.

Count 4 continued

Table 2: Distribution of Effective Votes

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total votes counted	Votes lost by fraction	Comments
1	First preference votes	207	162	116	151	146	168	950	n/a	Count of first preference distribution
2	Candidate A surplus (from count 1)	-16	5	4	2	1	2	16	2	Parcel from first preference distribution
Total		191	167	120	153	147	170			
3	Candidate C exclusion (from count 1)	Elected 1st	38	-116	38	22	18	116	0	Parcel from first preference distribution
Total			205	4	191	169	188			
4	Candidate C exclusion (from count 2)		n/a	-4	n/a	3	1	4	0	Parcel from Candidate A surplus
Total			205	0	191	172	189			

Two candidates are elected at end of count 4

At the end of count 4, Candidates B and D remain the only two candidates who have achieved the quota. The surplus of Candidate B is to be distributed first, as this candidate has the greater surplus. The surplus is distributed to the remaining two continuing candidates and is shown on the following pages as counts 5.1, 5.2 and 5.3.

Candidate D has achieved an *exact* quota of 191 so there are no surplus votes to distribute. All these ballot papers are set aside as fully dealt with. No more ballot papers are received by this candidate, and no further distribution of these ballot papers is required.

Count 5.1

Table 1: Count of Preferences and Distribution of Ballot Papers

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total ballot papers counted	Transfer value (TV)	Effective votes transferred to Table 2
1	First preference votes	207	162	116	151	146	168	950	1.0	950
2	Candidate A surplus (from count 1)	Elected 1st	71	54	31	14	37	207	0.07729469	16
Total			233	170	182	160	205			
3	Candidate C exclusion (from count 1)		38	-116	38	22	18	116	1.0	116
Total			271	54	220	182	223			
4	Candidate C exclusion (from count 2)		Elected 2nd	-54	Elected 3rd	41	13	54	0.07729469	4
Total				0		223	236			
5.1	Candidate B surplus (from count 1)			Excluded 1st		83	79	162	0.06829268	11
Total						306	315			

Distribution of Candidate B's surplus (first parcel received at count 1)

The distribution of Candidate B's surplus is divided between the two remaining continuing candidates, E and F. There are three parcels of ballot papers from Candidate B's surplus to transfer to the continuing candidates. Count 4 shows the first parcel, which are the 162 ballot papers received by this candidate at count 1. A transfer value is applied to these ballot papers as follows.

Transfer value

The transfer value for the first parcel of B's surplus is calculated as follows:

$$TV = \frac{\text{Number of surplus votes (see Table 2)}}{\text{Total number of votes received by the candidate (see Table 2)}} = \frac{14}{205} = 0.06829268$$

Count 5.1 continued

Table 2: Distribution of Effective Votes

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total votes counted	Votes lost by fraction	Comments
1	First preference votes	207	162	116	151	146	168	950	n/a	Count of first preference distribution
2	Candidate A surplus (from count 1)	-16	5	4	2	1	2	16	2	Parcel from first preference distribution
Total		191	167	120	153	147	170			
3	Candidate C exclusion (from count 1)	Elected 1st	38	-116	38	22	18	116	0	Parcel from first preference distribution
Total			205	4	191	169	188			
4	Candidate C exclusion (from count 2)		n/a	-4	n/a	3	1	4	0	Parcel from Candidate A surplus
Total			205	0	191	172	189			
5.1	Candidate B surplus (from count 1)		-14	Excluded 1st	n/a	5	5	11	1	Parcel from first preference distribution
Total			191		191	177	194			

Distribution of Candidate B's first parcel to continuing candidates

Once the transfer value of 0.06829268 is applied to the parcel of 162 ballot papers, 11 votes in total are transferred to Table 2, with five effective votes allocated to each continuing candidate and one vote lost by fraction.

Table 2 shows that at the end of count 5.1 Candidate F has 194 votes. This is over the quota of 191, but as this count is only one part of Candidate B's surplus distribution, this candidate will continue to receive votes from Candidate B's surplus. This is because a transfer of a candidate's surplus votes is treated as one whole count.

Count 5.2

Table 1: Count of Preferences and Distribution of Ballot Papers

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total ballot papers counted	Transfer value (TV)	Effective votes transferred to Table 2
1	First preference votes	207	162	116	151	146	168	950	1.0	950
2	Candidate A surplus (from count 1)	Elected 1st	71	54	31	14	37	207	0.07729469	16
Total			233	170	182	160	205			
3	Candidate C exclusion (from count 1)		38	-116	38	22	18	116	1.0	116
Total			271	54	220	182	223			
4	Candidate C exclusion (from count 2)		Elected 2nd	-54	Elected 3rd	41	13	54	0.07729469	4
Total				0		223	236			
5.1	Candidate B surplus (from count 1)			Excluded 1st		83	79	162	0.06829268	11
Total						306	315			
5.2	Candidate B surplus (from count 2)					48	23	71	0.00527866	0
Total						354	338			

Distribution of Candidate B's surplus (second parcel received from count 2)

The next parcel to be distributed from B's surplus is the 71 ballot papers obtained at count 2, which was the distribution of Candidate A's surplus. As these ballot papers were received under a previous transfer of surplus, they are distributed at a further reduced value.

Transfer value

The reduced transfer value is calculated by multiplying the current transfer value for this distribution (CTV) by the previous transfer value (PTV) of ballot papers.

$$\text{CTV} = \frac{\text{Number of surplus votes (see Table 2)}}{\text{Total number of votes received by the candidate (see Table 2)}} = \frac{14}{205} = 0.06829268$$

Multiplied by

$$\text{PTV} = \frac{\text{Number of surplus votes of Candidate A (at count 2)}}{\text{Total number of votes received by Candidate A (at count 2)}} = \frac{16}{207} = 0.07729469$$

TV = 0.005279

Count 5.2 continued

Table 2: Distribution of Effective Votes

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total votes counted	Votes lost by fraction	Comments
1	First preference votes	207	162	116	151	146	168	950	n/a	Count of first preference distribution
2	Candidate A surplus (from count 1)	-16	5	4	2	1	2	16	2	Parcel from first preference distribution
Total		191	167	120	153	147	170			
3	Candidate C exclusion (from count 1)	Elected 1st	38	-116	38	22	18	116	0	Parcel from first preference distribution
Total			205	4	191	169	188			
4	Candidate C exclusion (from count 2)		n/a	-4	n/a	3	1	4	0	Parcel from Candidate A surplus
Total			205	0	191	172	189			
5.1	Candidate B surplus (from count 1)		-14	Excluded 1st	n/a	5	5	11	1	Parcel from first preference distribution
Total			191		191	177	194			
5.2	Candidate B surplus (from count 2)		Elected 2nd		Elected 3rd	0	0	1	1	Parcel from Candidate A surplus
Total						177	194			

Distribution of Candidate B's second parcel to continuing candidates

Each of the 71 ballot papers in the second parcel of Candidate B's surplus are multiplied by the transfer value of 0.005279. As the transfer value is now so small, no effective votes are actually distributed, with one vote being lost by fraction.

Count 5.3

Table 1: Count of Preferences and Distribution of Ballot Papers

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total ballot papers counted	Transfer value (TV)	Effective votes transferred to Table 2
1	First preference votes	207	162	116	151	146	168	950	1.0	950
2	Candidate A surplus (from count 1)	Elected 1st	71	54	31	14	37	207	0.07729469	16
Total			233	170	182	160	205			
3	Candidate C exclusion (from count 1)		38	-116	38	22	18	116	1.0	116
Total			271	54	220	182	223			
4	Candidate C exclusion (from count 2)		Elected 2nd	-54	Elected 3rd	41	13	54	0.07729469	4
Total				0		223	236			
5.1	Candidate B surplus (from count 1)			Excluded 1st		83	79	162	0.06829268	11
Total						306	315			
5.2	Candidate B surplus (from count 2)					48	23	71	0.00527866	0
Total						354	338			
5.3	Candidate B surplus (from count 3)					18	20	38	0.06829268	2
Total						372	358			
							Elected 4th			

Distribution of third parcel Candidate B's surplus

Count 5.3 shows the transfer of Candidate B's third parcel of 38 ballot papers. This candidate received these ballot papers during count 3, which was Candidate C's exclusion.

Transfer value

As these ballot papers had an incoming value of 1, the outgoing transfer value is as follows:

$$TV = \frac{\text{Number of surplus votes (see Table 2)}}{\text{Total number of votes received by the candidate (see Table 2)}} = \frac{14}{205} = 0.06829268$$

Count 5.3 continued

Table 2: Distribution of Effective Votes

Count number	Description	Candidate A	Candidate B	Candidate C	Candidate D	Candidate E	Candidate F	Total votes counted	Votes lost by fraction	Comments
1	First preference votes	207	162	116	151	146	168	950	n/a	Count of first preference distribution
2	Candidate A surplus (from count 1)	-16	5	4	2	1	2	16	2	Parcel from first preference distribution
Total		191	167	120	153	147	170			
3	Candidate C exclusion (from count 1)	Elected 1st	38	-116	38	22	18	116	0	Parcel from first preference distribution
Total			205	4	191	169	188			
4	Candidate C exclusion (from count 2)		n/a	-4	n/a	3	1	4	0	Parcel from Candidate A surplus
Total			205	0	191	172	189			
5.1	Candidate B surplus (from count 1)		-14	Excluded 1st	n/a	5	5	11	1	Parcel from first preference distribution
Total			191		191	177	194			
5.2	Candidate B surplus (from count 2)		Elected 2nd		Elected 3rd	0	0	1	1	Parcel from Candidate A surplus
Total						177	194			
5.3	Candidate B surplus (from count 3)					1	1	2	0	Parcel from Candidate C exclusion
Total						178	195			
							Elected 4th			

Four candidates are now elected

Once the transfer value of 0.06829268 is applied to the 38 ballot papers and they are distributed to the two continuing candidates, Candidates E and F are each allocated one vote. At the completion of count 5.3 Candidate F is elected, and there are now four elected candidates. Candidates A, B, D, and F are elected in that order. The count is now complete.

Continuing candidate
An eligible candidate not already elected or excluded from the count.

Count
A distribution of ballot papers to candidates in an election. A count can be a:

- distribution of first preference votes;
- transfer of an elected candidate's surplus; or
- transfer of a parcel of an excluded candidate's ballot papers.

Droop method
A formula for calculating the quota, often expressed as a percentage, necessary for a candidate's election in certain forms of proportional representation - including the WIGM used in Local Government and Legislative Council elections. The total number of formal votes is divided by one more than the number of seats or positions to be filled and adding one to the result.

$$Q = \frac{\text{Total formal ballot papers}}{\text{Number of vacancies} + 1} + 1$$

Exclusion
The removal of a candidate from the count through failure to acquire sufficient votes to remain in contention for a vacancy. The candidate with the least amount of votes is excluded from a count if there are no elected candidates with a surplus to distribute. The ballot papers of the excluded candidate are distributed to the next available preference at the transfer value at which they were received (see **transfer value** below).

Lost by fraction
The transfer of ballot papers with a transfer value of less than 1 may result in a loss of votes. This occurs when ballot papers with a next available preference for a particular continuing candidate are multiplied by the transfer value and the result is a number with a remainder. These remainders are ignored.

For example:
Number of ballot papers = 431
Transfer value = 0.074321
Ballot papers (431) multiplied by the transfer value (0.074321) = 32.032351 votes
The result is 32 votes with the remainder 'lost' by fraction.

Even where the result is, for example, 32.999999, the result is 32 votes, not 33.

When several remainders occur, they can add up to a loss of whole votes and are recorded as such on the count sheets.

Next available preference
This is the next preferred candidate on a ballot paper according to the way in which the elector has numbered the candidates. Votes can then be transferred to this candidate in the case of a surplus or exclusion. A candidate is not 'available' for vote transfer if they are ineligible, elected or excluded.

Order of election
This is determined by the count at which a candidate achieves quota, with the candidate gaining quota earliest taking precedence. If two or more candidates are elected at the same count, the candidate with the largest surplus is said to be elected first.

The order of election is significant where there are surpluses to be transferred. The surplus votes of the candidate elected earliest are always distributed before those of later elected candidates.

The order of election is also significant for Local Government elections in Western Australia. Those elected first may be allocated the longer terms, while those elected later may be allocated shorter terms.

Preferential voting
In a general sense, this term refers to voting systems in which voters are required to mark the ballot paper with consecutive numbers indicating the order in which candidates are preferred. In the Western Australian context, this term is applied to elections utilising preferential voting in single member electorates or wards. Preferential voting in multi-member districts or wards is generally known as proportional representation.

Proportional representation (PR)
The system is designed to ensure that seats in an elected body are allocated as nearly as possible in proportion to the votes received. In Western Australia it is used for the election of candidates in multi-member electoral districts or wards.

Electors are able to choose between candidates by numbering the candidates in order of preference. To be elected a candidate must obtain a quota or proportion of the formal vote. This can comprise first preference votes and those received after the distribution of preferences.

Any votes for an elected candidate in excess of the quota (surplus votes) are transferred to candidates remaining in the count according to the next available preference shown on the ballot paper. If any seats remain unfilled, the lowest placed candidates are progressively excluded from the count and their votes transferred to candidates remaining in the count.

PR systems can be grouped broadly into two categories: list systems and the single transferable vote (STV) system. The PR system used in Western Australia for Local Government and Legislative Council elections is an STV system.

Quota
The term used for the number of votes which a candidate must receive in order to be elected. This is calculated by using the Droop method explained previously.

Surplus
Votes received by an elected candidate in excess of the quota.

Transfer
The transferring of ballot paper(s) from an elected or excluded candidate to a continuing candidate.

Transfer value (TV)
This is the fractional value at which ballot papers are transferred to continuing candidates.