

# LOCAL TRANSFERABLE VOTE

## A Better Electoral System For Canada

Submission to House of Commons Special Committee on Electoral Reform

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### **Summary:**

This brief contains detailed description of a made in Canada model of Proportional Representation, the Local Transferable Vote (LTV).

LTV utilizes and builds on the advantages and benefits of the two known alternatives to the First Past The Post, which are the Single Transferable Vote (STV) and the Mixed Member Proportional system (MMP), while addressing the known disadvantages of the above mentioned systems.

Primarily, LTV uses regional preferential ballot, with all candidates facing the voters as in the STV, but retains local constituencies as in the MMP.

## Basic Principles

Under LTV, local constituencies would be grouped into electoral regions that would essentially function as multi-member STV constituencies. For smaller provinces, the electoral region could be the whole province. To balance local and regional representation, there would be fewer local constituencies than seats in the electoral region.

Candidates would be nominated locally in their constituencies. The ballot would list all candidates in the region, grouped by their political affiliation, with the local candidates featured in the highlighted section at the top. Independent candidates could use self-designation to be distinguished from each other.

Voters would rank candidates in order of their preferences. They would be free to rank local and regional candidates as they please and as many as they wish, as long as the ranking is consecutive. (No restarting from 1 when moving from local to regional candidates.)

First choice votes would be counted locally in each constituency and then summed up regionally. The regional quota is determined as the total number of votes divided by the number of seats plus one, plus one vote. (For the 10-seat New Brunswick, that would be  $1/11+1$  vote  $\sim 9.091\%$  of the regional vote.)

To get elected, a candidate must meet at least one of the following conditions:

- 1) Win more than 50% of the first choice votes in his local constituency.  
(First choice votes from other constituencies wouldn't count towards this goal.)
- 2) Meet the regional quota with either first-choice or transferred votes, region-wide.
- 3) Become the last candidate from his local constituency to remain in the count.

The counting would proceed as in any other preferential voting system. Unless protected by condition 3, the candidate with the least votes would be eliminated and his votes transferred in accordance with voters' second or subsequent choices. This process is repeated until all the seats in the region have been filled.

In the event of a surplus (when the candidate's vote count exceeds the regional quota), the last batch (that has caused the surplus) would be recounted and each vote would be transferred at a value equal to the number of surplus votes divided by the number of ballot papers received in the last transfer.

To ensure that all seats are won with the same number of votes (or as close to that as possible), candidates would remain in the count until they actually meet the regional quota, even if they have already been elected under conditions 1 or 3.

With fewer local constituencies than seats in the electoral region, there would be some constituencies with more than one candidate elected. In this case, the first candidate to get elected, would become the MP for that constituency with the subsequent one(s) becoming MPs at large for their electoral region.

## Advantages

### Over FPTP:

- Results are proportional, the outcome is very close to what the voters actually say with their votes.
- Preferential ballot addresses the concerns over vote splitting and eliminates the need for any form of strategic voting.
- The number of votes required to win seats is similar to all candidates in the region. No seats could be won with mere 30% - 40% of the local vote or equivalent thereof.
- Votes from individual constituencies are then counted regionally, leaving absolutely no incentives for gerrymandering.

### Over MMP:

- All candidates are nominated locally and campaign first and foremost in their local ridings.
- All seats, local and top-up ones, are won with the same number of votes. (Unlike MMP where local seats are usually won with fewer votes than top-up seats.)
- No party lists whatsoever. All candidates face the voters. Remainders are distributed based on voters' preferences, not mathematical formulas.
- FPTP voting is completely done away with.
  - No concerns over splitting the local vote.
  - No strategic voting in any form, locally or regionally.
  - No “twin party” schemes to capture both local and top-up seats to which a party would not be entitled.
  - No “clean sweeps” or “wrong winner” situations when a party wins so many local seats that there aren't enough top-up seats to offset the distortion.
- Independent candidates can compete locally and regionally under the same terms as those nominated by political parties. (Unlike MMP which usually leaves no room for Independents on the regional ballot and fails to make it any easier for Independents to compete locally.)

### Over STV:

- Much stronger geographical connection between voters and elected representatives, as multi-member regions would be subdivided into local constituencies.
- More seats per electoral region than typically under STV, hence better proportionality without significantly increasing the number of candidates on the ballot.
- Surplus transfer rule is simpler than what was proposed under BC-STV, ensuring accuracy and fairness of the results without needlessly complicating the count.

**Note:** Preferential voting with multiple winners is the best way to establish proportional representation in the small to medium size regions.

**For example**, with PEI only having 4 seats, how do we treat let's say 17%? STV gives us the solution – use voters' preferences and see if the candidate can receive enough transferred votes to win. However, under STV, PEI would become a single 4-seat constituency, while under LTV there would be 3 local constituencies with 1 MP elected at large.

# VOTING SYSTEMS AT A GLANCE

**FIRST PAST THE POST**

**ALTERNATIVE VOTE (INSTANT RUNOFF)**

## MIXED MEMBER PROPORTIONAL

**1. LOCAL VOTE**

**2. REGIONAL VOTE**

## SINGLE TRANSFERABLE VOTE

## LOCAL TRANSFERABLE VOTE RANKED BALLOT - LOCALLY NOMINATED CANDIDATES

**LOCAL CANDIDATES**

**REGIONAL CANDIDATES**

## Technical recommendations

### Optimal ratio between local and at large seats.

When choosing the number of local constituencies in the region, it's desired to maintain the regional quota just above 50% of the local vote. This is to ensure that a candidate who wins majority in his constituency doesn't have to yield his seat to someone else who won the regional count and vice versa.

Using New Brunswick as an example, we see that with 10 seats and 9.091% regional quota, we need 6 local constituencies (calculated as 50% divided by 9.091%, rounded up). The regional quota therefore averages to  $9.091\% \times 6 \sim 54.55\%$  of the local vote.

Table 1. Optimal number of local seats for the regions of different sizes.

Region size	Regional quota	Local seats	Regional quota as % of local vote	Top-up seats
4 seats	20.01%	3	60.01%	1
5 seats	16.67%	3	50.01%	2
6 seats	14.29%	4	57.15%	2
7 seats	12.51%	4	50.01%	3
7 seats	12.51%	5	62.51%	2
8 seats	11.12%	5	55.56%	3
9 seats	10.01%	6	60.01%	3
10 seats	9.10%	6	54.55%	4
11 seats	8.34%	7	58.35%	4
12 seats	7.70%	7	53.85%	5
13 seats	7.15%	8	57.15%	5
14 seats	6.67%	8	53.35%	6
14 seats	6.67%	9	60.01%	5
15 seats	6.26%	9	56.26%	6
16 seats	5.89%	9	52.95%	7
17 seats	5.56%	10	55.56%	7

What we get is quite similar to the 6:4 ratio used in the MMP. This would also ensure that political parties that run full slate, don't run out of candidates should they receive over 50% of the vote in the region.

For urban areas, the best option would be 10, 12 or 14 seat regions, for suburban – 8-10 seat regions. Regions with 6, 9 or 11 seats could be used in remote areas where geographical limitations would require more local constituencies or where the number of seats would be limited by the total number of seats in the province.

It is not recommended to make electoral regions too large so that individual candidates could still be noticed in a long list of their colleagues from all over the region. With geographic characteristics of Manitoba and Saskatchewan likely to require 9:5 split (rather than 8:6), it is reasonable to make 9 local constituencies the limit for an electoral region.

**Self-designation option for Independent and Unaffiliated candidates.**

Since Independents don't have the "umbrella" of a political party to identify their views, they should be allowed to use self-designations. These should be limited to 3-4 words and should not resemble names of registered political parties or otherwise imply affiliation with known organizations.

As such, candidates wouldn't be allowed to use self-designations such as "Animal Rights", "Christian values", "Marxist" or "Progressive" as political parties with similar names already exist. Similarly they could not use "PETA", "United Way" or "CUPE" even if they are members of these organizations.

Instead they could use self-designations such as "Against seal hunt", "Traditional values", "Working class rights", "Anti-Microsoft" or even "Labor" or "Social Credit" (political parties that no longer exist,) as this would not falsely imply any affiliation or endorsement while allowing voters to distinguish between different Independent candidates on the ballot.

**Vacancies, deaths, resignations.**

**Local seats** would be filled in a by-election, using single-member preferential voting (known as Alternative Vote or Instant Runoff).

**Regional seats** would be filled by a recount.

**Acclamations.**

**Local:** no polling would take place in uncontested constituencies, the only candidate would become MP for that constituency by acclamation.

**Regional:** if the number of candidates in the region is less or equal to the total number of seats, polling would take place in contested constituencies to determine which candidates become local MPs and which ones become MPs at large.

**Nomination deadline.**

Current campaign schedule allots less than 3 weeks for nominations. To allow greater participation of minor party candidates and Independents, minimum campaign length should be extended by 2 weeks, to 50 days, with at least 31 day allowed for nominations.

**Electroning voting.**

Due to its vulnerability to hacking, fraud, identity manipulation and other distortions, using electronic voting would seriously compromise the integrity of Canada's electoral system, therefore I would strongly recommend against it.

A paper copy of the ballot (either standard or a special / postal ballot) must be present, so that the results could be verified and reconfirmed at any time. Postal voting should remain available for anyone who is unable to come to the polling station.

## **How it will work for Canada**

The following is a brief overview of how LTV constituencies and electoral regions could be organized in each province and territory.

### **Newfoundland and Labrador**

The 6 island constituencies would form a 6-seat electoral region with 4 local seats and 2 top-up seats.

Labrador, due to its much smaller population, would become a special constituency, not belonging to any electoral region. Labrador MP would be elected locally, using Instant Runoff.

### **Prince Edward Island**

The Island would form a 4-seat electoral region with 3 local constituencies and 1 top-up seat.

A 2:2 split, while possible is highly not recommended as it would in fact create two twin-member constituencies with both seats always split between the government and the opposition.

### **Nova Scotia**

The most recommended option for Nova Scotia is 11-seat region with 7 local seats and 4 top-up seats.

Another option is to have 2 electoral regions, with Halifax and adjacent constituencies forming the “central” 5-seat region (3 local seats and 2 top-up seats,) and the remaining constituencies forming a “rural” 6-seat region with 4 local seats and 2 top-up seats.

**New Brunswick** would form a 10-seat region with 6 local seats and 4 top-up seats.

### **Quebec**

With 78 seats, 9 or 10 electoral regions would be required. Their size will vary from 8 seats in a typical rural region, 10-12 seats in suburban regions including Quebec City and 14 seats in urban Montreal. In the north, to prevent the redrawn constituencies from becoming way too huge, a special region would be formed, consisting of 4 or 6 seats (3-4 local and 1-2 top-up seats respectively). Overall we can expect Quebec to have 48 local constituencies with 30 top-up seats.

### **Ontario**

With as many as 121 seats, about half of them in the urban area, 12 or 13 electoral regions would be required. The regions will vary in size from 8 seats in a typical urban region, 10-12 seats in the Southern Ontario and the Golden Horseshoe and up to 14-15 seats in the Greater Toronto Area.

The city of Toronto (25 seats) could be subdivided into 2 electoral regions, or it could form 3 electoral regions, together with Mississauga and Brampton (36 seats in total).

Northern Ontario would have slightly higher number of local constituencies, becoming a 6- or a 9- seat region with 2 or 3 top-up seats respectively. Another option would be forming a special 4-seat region in the Thunder Bay area, that would only have 1 top-up seat.

Overall we can expect Ontario to have 73 local constituencies with 48 top-up seats.

## **Manitoba**

As mentioned above, Manitoba's geographic characteristics would require 9 local constituencies rather than 8, with only 5 top-up seats instead of 6.

The province could form a single 14-seat region or it could have 2 electoral regions with the Winnipeg area forming an 8-seat urban region (with 5 local seats and 3 top-up seats) and the rest of Manitoba forming a 6-seat rural region with 4 local seats and 2 top-up seats.

## **Saskatchewan**

Similarly to Manitoba, Saskatchewan too would require 9 local constituencies rather than 8.

Similarly we have an option of a single 14 seat region (with 9 local seats and 5 top-up seats) or having the cities of Regina and Saskatoon as well as the area between them grouped as a separate 8-seat region with the remaining constituencies forming a 6-seat rural region.

## **Alberta**

With 34 seats, Alberta is likely to be divided into 4 electoral regions consisting of 8-10 seats each. Other options involving 3 or 5 electoral regions are also available. Overall Alberta is likely to have 21 local seat and 13 top-up seats.

## **British Columbia**

With 42 seats, BC is likely to be divided into 5 or 6 regions, varying in size from 6-8 seats in the rural BC to 10, 12 or 14 seats in the Greater Vancouver Area. Vancouver Island that currently has 6 seats “and a half”, could either become a part of an 8-seat region (with 4 out of 5 local constituencies located on the island,) or form a special 6-seat region. Similarly to other provinces, a special region of 6 (or 4) seats would be formed in the north, to prevent the redrawn constituencies from becoming too large. Overall BC is likely to have 26 local seats and 16 top-up seats.

## **Yukon, North West Territories and Nunavut**

Similarly to Labrador, each territory would become a special constituency, each electing 1 MP using Instant Runoff.

## **Overall**

In total there would be 210 local constituencies with the remaining 128 MPs elected as MPs at large from 35 to 40 electoral regions. That is slightly more electoral regions compared to a typical MMP proposal for Canada, but that's 2-3 times fewer regions compared to P3 or regular STV, which means greater proportionality compared to either P3 or STV.



## Simulated election results

Table 2.1: Vote and seat totals for Canada, compared to actual results. Also includes simulated results for BC and Quebec, the two provinces that had 4-party competition in the 2015 election.

	Canada			British Columbia			Quebec		
	Vote %	FPTP	LTV	Vote %	FPTP	LTV	Vote %	FPTP	LTV
Liberals	39.5%	184 (54.4%)	147 (43.5%)	35.1%	17 (40.5%)	16 (38.1%)	35.8%	40 (51.3%)	30 (38.5%)
Conservatives	31.9%	99 (29.3%)	106 (31.4%)	29.9%	10 (23.8%)	13 (31.0%)	16.7%	12 (15.4%)	13 (16.7%)
NDP	19.7%	44 (13.0%)	69 (20.4%)	26.0%	14 (33.3%)	11 (26.2%)	25.4%	16 (20.5%)	21 (25.9%)
Bloc	4.7%	10 (3.0%)	14 (4.1%)				19.4%	10 (12.8%)	14 (17.9%)
Green	3.4%	1 (0.3%)	2 (0.6%)	8.2%	1 (2.4%)	2 (4.8%)	2.2%	0 (0.0%)	0 (0.0%)

Table 2.2: Simulated results for the regions that have been won or historically dominated by a single party, compared to actual results.

	Atlantic Canada			Toronto, Mississauga, Brampton			Alberta		
	Vote %	FPTP	LTV	Vote %	FPTP	LTV	Vote %	FPTP	LTV
Liberals	58.7%	32 (100%)	21 (65.6%)	52.0%	36 (100%)	20 (55.5%)	24.5%	4 (11.8%)	9 (26.5%)
Conservatives	19.0%		6 (18.8%)	28.5%		10 (27.8%)	59.6%	29 (85.3%)	20 (58.8%)
NDP	17.9%		5 (15.6%)	16.6%		6 (16.7%)	11.6%	1 (2.9%)	5 (14.7%)
Green	3.5%		0 (0.0%)	2.1%		0 (0.0%)	2.5%	0 (0.0%)	0 (0.0%)

Note: Simulated results are based on mathematical estimations of new riding boundaries and regions.

For the four major parties, the results are very close to the actual popular vote. The reason Green party remains underrepresented, is the party's poor performance outside of BC. Under MMP (let alone FPTP) these votes would be discarded. Under LTV however, they would be transferred to voters' second (or subsequent) choices, which explains the extra seats for the Liberals and the NDP.

It's important to remember that, knowing their votes will count, people would vote differently than they do in a winner-take-all system. That means more opportunities for smaller parties, (first and foremost the Greens,) as well as for Independents. Ireland with some 10-15 Independents elected in almost every election since early 1990s, is a great example.

## A case for the referendum

While the government deemed the referendum unnecessary, it is strongly recommended to conduct a referendum on voting reform for the following reasons:

- It has become a de-facto rule in the past couple of decades, that such fundamental changes in voting system require direct voters' approval.
- Voters' mandate, given on a nation-wide referendum, would enshrine the reform, preventing any future government from repealing or altering it arbitrarily to suit their needs.
- The prospect of the projected voting system being put to voters' approval will compel MPs to hold themselves to a higher standard, emphasizing on what voters want, rather than on what politicians may find beneficial for themselves.
- Finally, a referendum campaign (probably no more than 7-10 weeks long) would actually take much less time than it would take to overcome any procedural and legal challenges put forward by the opponents of the reform.

## Summary of Recommendations

The following are my recommendations to the Special Committee on Electoral Reform:

- That the Special Committee on Electoral Reform recommends Local Transferable Vote (LTV) as the new electoral system to be used in elections to the House of Commons.
- That the bill on the subject be adopted no later than July 1, 2017.
- That Elections Canada together with the respective Parliamentary committees commence their work on designing new constituencies and electoral regions as soon as the bill receives Royal Assent.
- That the government conduct a broad public awareness campaign to introduce Canadians to the proposed electoral system. (This however should not involve campaigning for the Yes vote.)
- That a nation-wide referendum on the subject be held, with the official 50-day campaign period starting no later than May 11, 2018, for the actual voting to take place on or before June 30, 2018.
- That LTV be adopted as the new electoral system for Canadian federal elections, provided the outcome of the referendum meets the conditions outlined in the Clarity Act 1999, primarily – a clear majority obtained with a clear question.

Respectfully,

Leonid A. Elbert  
Moncton, NB

# ANNEX:

## Sample Ballot

### PROVINCE OF NEW BRUNSWICK RIDING OF MONCTON – BEAUSEJOUR

- Number the candidates in your order of preference.
- Put number 1 next to the name of the candidate who is your first choice,
- Put 2 next to your second choice and so on.
- You can rank as many or as few candidates as you wish.
- The candidates in the shaded area are local candidates from your riding. At least one of them will be elected.
- 10 Members of Parliament will be elected from 6 ridings of the Province of New Brunswick.

GOVERNMENT PARTY	OFFICIAL OPPOSITION PARTY	THIRD PARTY	MINOR PARTY	INDEPENDENT CANDIDATES
MORTON Melanie <input type="checkbox"/>	O'CONNOR Oliver <input type="checkbox"/>	DELACROIX David <input type="checkbox"/>	WALLACE Wendy <input type="checkbox"/>	
BOULANGER Benoit <input type="checkbox"/>	ELDRIDGE Eveline <input type="checkbox"/>	ADAMS Anna <input type="checkbox"/>	YOUVILLE Yvonne <input type="checkbox"/>	BRECLAVSKIY Boris <input type="checkbox"/> <small>Unions &amp; Workers' Rights</small>
HOLMES Heather <input type="checkbox"/>	PROULX Pierre <input type="checkbox"/>	UNGER Ulisses <input type="checkbox"/>	CLARKSON Claire <input type="checkbox"/>	VAUGHAN Victoria <input type="checkbox"/> <small>Anti Euthanasia, Pro Life</small>
IBBITSON Ian <input type="checkbox"/>	LIBERMAN Lynn <input type="checkbox"/>	KIRBY Kenneth <input type="checkbox"/>	ZELINKEVICH Zinaida <input type="checkbox"/>	RODRIGUEZ Ricardo <input type="checkbox"/> <small>Spanish Speakers Rights</small>
TOBIN Trevor <input type="checkbox"/>	GOUREVICH Gregory <input type="checkbox"/>	FOUGERE Francois <input type="checkbox"/>	EXLER Edward <input type="checkbox"/>	JOHNSON Jennifer <input type="checkbox"/> <small>Independent Social Credit</small>
NORWOOD Nathalie <input type="checkbox"/>	SMITH Susan <input type="checkbox"/>	QUALE Quinto <input type="checkbox"/>	XANTOS Xavier <input type="checkbox"/>	

Machine readable ballot.  
 Could be implemented for the 2023 and subsequent elections.  
 This would reduce counting time to mere hours.



**PROVINCE OF NEW BRUNSWICK  
 RIDING OF MONCTON – BEAUSEJOUR**

- Rank the candidates in your order of preference.
- Fill the oval with 1 next to your first choice candidate, fill the oval with 2 next to your second choice and so on.
- Use two ovals when needed for two digit numbers. Use (10) and (1) for 11, (10) and (9) for 19, (20) and (1) for 21 etc.
- You can rank as many or as few candidates as you wish, as long as your ranking remains consecutive.
- The candidates in the shaded area are local candidates from your riding. At least one of them will be elected.
- 10 Members of Parliament will be elected from 6 ridings of the Province of New Brunswick.

GOVERNMENT PARTY	OFFICIAL OPPOSITION PARTY	THIRD PARTY	MINOR PARTY	INDEPENDENT CANDIDATES
MORTON Melanie	O'CONNOR Oliver	DELACROIX David	WALLACE Wendy	
BOULANGER Benoit	ELDRIDGE Eveline	ADAMS Anna	YOUVILLE Yvonne	BRECLAVSKIY Boris <small>Unions &amp; Workers' Rights</small>
HOLMES Heather	PROULX Pierre	UNGER Ulisses	CLARKSON Claire	VAUGHAN Victoria <small>Anti Euthanasia, Pro Life</small>
IBBITSON Ian	LIBERMAN Lynn	KIRBY Kenneth	ZELINKEVICH Zinaida	RODRIGUEZ Ricardo <small>Spanish Speakers Rights</small>
TOBIN Trevor	GOUREVICH Gregory	FOUGERE Francois	EXLER Edward	JOHNSON Jennifer <small>Independent Social Credit</small>
NORWOOD Nathalie	SMITH Susan	QUALE Quinto	XANTOS Xavier	

