

# **Technology assisted voting review**

## Optional submission form for responses to the Issues and Questions paper

Close of responses to the Issues and Questions paper is Friday, 13 January 2023

## Personal information in submissions - privacy

We intend to publish all submissions received in response to the review on the NSW Electoral Commission's website. Please do not include any personal information in your submission, about yourself or others, if you do not consider it to be suitable for publication. Individuals making a submission in a personal capacity can request, however, that it be published anonymously. In that case, do not include any personal information in the submission itself that you do not wish to be published. Names, contact details and addresses of people making submissions on behalf of organisations may be published where they are contained in a submission (that is, those details will not be redacted by the NSW Electoral Commission). Please note that the NSW Electoral Commission may also be required or authorised by law to disclose any information you provide as part of the review, regardless of website publication. The NSW Electoral Commission may also decide to redact or not publish any submission that, in our view, contains material that is discriminatory, offensive, defamatory, refers to matters currently before a court, contains sensitive health information or other personal information of third parties, or where it considers publication may otherwise be contrary to law.

Information about the person or organisation making the submission							
<ul> <li>If you are providing a submission on beha</li> <li>Indicate below, if you want your name to I</li> <li>Email and telephone contact details will n</li> </ul>	pe published with the	the name of the organisation will be published. submission.					
Ian Brightwell Private							
NAME ORGANISATION							
Is your name for publication? Yes No							
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PHONE EMAIL							
as an attachment to your email.  I believe it is inevitable that a portion of vote device at Council and Parliamentary election of the NSWEC to to manage this process we required to delivery TAV elections. This corn (preferably in conjunctions with other Australian managing TAV.  I would also contend that Postal voting is a viable alternative to TAV remote voting on process.	es will need to be returned in participation and will be predicated by the mpetence is not easily alian electoral bodies in fallible if not more facersonal devices just	s. If more space is required please provide additional information urned remotely using TAV from the electors personal computing d public acceptance of elections is to be maintained. The ability ne competence of the NSWEC in managing the technology of developed but is easily lost. It is imperative that the NSWEC maintain and ideally develop further their competence in allible than TAV remote voting and should not be considered as a because it faces less criticism from the media and TAV in PV was criticized when first introduced and still has detractors.					
How to lodge your submission							
Submissions must be received by the NSW E	lectoral Commission	no later than Friday, 13 January 2023.					
By email:	By post:						
TAV.Review@elections.nsw.gov.au	Technology assist NSW Electoral Co GPO Box 832 SYDNEY NSW 20	ommission					
	OFFICE	USE ONLY					
NO. OF ATTACHMENTS RECEIPT NO.							

#### **Primary questions**

- a) Do the current settings for technology assisted voting in New South Wales remain appropriate to manage the level of risk to successful election delivery, compared to when iVote was first offered in 2011? If so, why? If not, why not?
- b) What specific changes, if any, to the current settings for delivering technology assisted voting would help to manage risk better? Should any or all of the following changes be made in New South Wales, noting some are already used in other jurisdictions:
  - allowing only a specified proportion (X%) of the total number of electors in a particular election to use technology assisted voting?
  - reducing the categories of New South Wales electors entitled to use technology assisted voting and, if so, which categories of electors should still have access?
  - limiting the registration and voting periods for technology assisted voting, such as requiring early pre-registration and excluding all such voting either on election day or from an earlier time prior to election day?
  - extending the time for electors (who have registered to use technology assisted voting) to cast a vote using technology assisted voting after 6pm on election day where performance issues have impacted its availability?
  - expanding the options and/or requirements for scrutineering by election participants of technology assisting voting and associated counting processes?
  - providing where technology assisted voting is unavailable for some eligible electors or for some of the voting period (for example, due to a performance issue) that a failure to provide this voting channel cannot affect the validity of the whole election?
- c) Are there any other methods of technology assisted voting that the review should consider besides telephone voting, internet voting on personal devices and voting kiosks in voting centres?
- d) Which technology assisted voting methods or combination of methods best meet the needs of any category of electors that should have access in the future? Why?
- e) Are there places outside New South Wales that already have established the right settings for technology assisted voting around security, accessibility, efficiency and cost? If so, are the elections in these other places sufficiently similar to New South Wales State elections in both scale and constitutional importance to be a sound comparison?

Please respond to the questions above in the following field. The word limit in this form field is approximately 4,000 characters, if more space is required please provide additional information as an attachment to your email.

- a) Yes but would not allow registration for a TAV vote on election day I would only allow voters who have registered prior to election day vote on election day up to close of poll.
- b) Do not allow election day registration to remote TAV vote and introduce legislation to clarify when an election outcome is in doubt due to election operational issues. This legislation needs to address TAV and all other voting channels as all channels can fail particularly postal voting.
- c) No but I would not recommend continuing with telephone voting given the ability of most disabled people to vote using their own personal Internet connected devices with disability settings. Telephone voting like that done by the AEC is all that is needed for a small number of disabled voters who could not otherwise vote ie electors who can only convey their voting intentions verbally.
- d) Internet remote TAV and TAV kiosk voting for prepoll venues using verified paper trail for prepoll kiosk voting. The use of TAV for prepoll will allow results to be returned earlier on election night. Note Prepoll TAV should be a separate process to remote TAV with its own electronic ballot box to allow quicker counting of results and reduction of risk. Election day voting should remain predominantly paper based and in polling places for as long as reasonably possible.
- e) No not to my knowledge still all very preliminary.

1. The constitutional context for and policy objectives of the <i>Electoral Act 2017</i> , including the protection of the franchise for all New South Wales residents who are eligible to vote.
Questions
a) How can the different types of technology assisted voting support or challenge the principles and objects of electoral law in New South Wales, including:
- accessibility
- fairness
- integrity of the electoral system
- integrity of representative government
- free and fair citizen participation in electoral processes
Are there other principles or objectives that should be considered?
How should these factors be addressed and, where necessary, balanced when designing technology assisted voting systems?
) How does technology assisted voting maintain or increase participation in elections and referenda for particular classes of electors or the general voting population?
Please respond to the questions above in the following field. The word limit in this form field is approximately 5,500 characters, f more space is required please provide additional information as an attachment to your email.
<ul> <li>a) TAV helps accessibility especially for remote voters. It is a myth that PV deals with remote voters adequately. The main reason PV is perceived to be better than remote TAV is because the level of failure experienced by PV is not widely publicised or examined by academics.</li> </ul>
b) The problem TAV faces is that it is scrutinised by by a very active anti TAV lobby which does not consider the relative risks associated with TAV compared to other voting channels. This lobby is very effective in raising in the media the risks and issues of TAV but fail to assess and publicise the risks of other voting channels. In particular the risks and failures of PV. PV is the voting channel which remote TAV replaces yet when assessments are done of remote TAV the same issues and failures faced by PV are not considered.
c) More information needs to be made public about the problems of PV and other voting channels. Once it becomes clear that no voting channel is without problems it will be easier to compare the risks of remote TAV with PV.
d) There is strong evidence that many overseas and interstate electors voted using remote TAV because they could not reasonably use PV or attendance voting options. Without remote TAV these people would be disenfranchised. See attachment 1

<ol><li>Contemporary community and industry standards for balancing accessibility, cost, privacy, and security in digital transactions that are fundamental to the relationship between citizen and state.</li></ol>
Questions
a) What factors should be included in a cost benefit analysis of technology assisted voting options? How could benefits such as accessibility or a secret vote be quantified?
b) Do you agree that the ECANZ Essential Principles criteria (at Appendix B) should apply to any technology assisted voting system adopted in New South Wales? If not, are there other standards that are more suitable (for example, the Council of Europe, Switzerland or the United States)?
c) To what extent do these standards adequately address integrity features such as vote verification and resilience to threat factors such as cyber-attack?
d) Are there any particular standards that should be prioritised over others when designing technology assisted voting systems? If so, why should those standards be prioritised?
Please respond to the questions above in the following field. The word limit in this form field is approximately 5,000 characters, if more space is required please provide additional information as an attachment to your email.
a) Currently risk assessments used in cost benefit analysis of remote TAV is not being compared to the existing voting channels such as PV. Relative analysis of risks should be used when assessing the viability of remote TAV.
b) Yes
c) They set a conceptual framework. The same framework should be used to determine the adequacy of PV.
d) Nothing that I am aware.

3. The needs of electors who are blind or have low vision, and other electors with a disability, in relation to independently casting a secret and verifiable vote.

#### Questions

- a) What forms of technology assisted voting best support the independent casting of a secret and verifiable vote for electors with accessibility requirements? Please specify the requirements alongside the preferred form of technology assisted voting.
- b) Are there advantages in having kiosks at voting centres that provide speech output through headphones and buttons to scroll through the ballot and choose candidates? These may include controls that are identifiable tactilely or have braille, user control of font size and screen contrast.
- c) Can braille ballot papers or telephone voting meet the voting needs of some electors who are blind or have low vision? If not, why not?
- d) To support planning for elections and referenda and minimise performance risks, should eligible electors be required to preregister for technology assisted voting ahead of election day? When should the registration deadline be (for example, one week before the election)? Should the voting period for these eligible electors close before election day (for example, one day or earlier before election day)?
- e) If legally permitted, would it be appropriate for the Commissioner to verify eligibility of persons claiming to fall within a technology assisted voting elector class with external agencies or organisations?
- f) What stages in the design and development of technology assisted voting systems should involve representatives of electors who are blind or have low vision, or who have a disability?

Please respond to the questions above in the following field. The word limit in this form field is approximately 4,700 characters, if more space is required please provide additional information as an attachment to your email.

- a) Remote TAV where the elector uses their own device which they are familiar.
- b) No if remote TAV is provided and it is set up to satisfy accessibility requirements.
- c) No only very small group of blind people can read braille and braille ballots are very expensive and unwieldy. Blind electors for the most part prefer to used their own computing devices with accessible websites. Telephone voting for the most part is preferred by the very elderly or disabled who can not get to a PP and can not use a computer not necessarily the blind. This is a small cohort and is best handled by human operators.
- d) Yes they need to register before they vote and they should be able to vote prior to or on election day. Registration for remote TAV should close at 6pm on the day before election day. If they do not want to vote using remote TAV they can vote at prepoll or on election day they can attend a prepoll or PP and vote using the disability protocols already provided at prepolls and PP.
- e) No TAV registration should not be held to a higher standard than other forms of voter eligibility assessment ie attendence voting uses a verbal declaration which is untested.
- f) Initial design requirements setting and final acceptance testing.

## 4. The circumstances and requirements for electors located overseas, outside New South Wales or in rural and remote areas. Questions

- a) Noting that being outside New South Wales on election day is a lawful reason to be excused from voting, should technology assisted voting options be provided to these electors? If yes, what forms of technology assisted voting and why? What other options could be considered?
- b) Noting that an elector in a remote location in New South Wales (more than 20km from a voting centre) has the option for a postal vote, should technology assisted voting options be provided to these electors? If yes, what forms of technology assisted voting and why?
- c) To support contingency planning ahead of elections and referenda, should there be a requirement for pre-registration for these eligible electors to use technology assisted voting (for example, registration closes one week before the election day)? Should the voting period for these eligible electors close before election day (for example, one day or earlier before election day)?
- d) If legally permitted, is it appropriate for the Commissioner to verify eligibility of these elector classes, for example by geolocation data such as and IP address or telephone caller location information? Do you have any further suggestions of how this information could be verified (beyond what has been suggested above)?
- e) Should government or other digital identity credentials, such as a myGovID or an ACT Digital Account, be used as an elector verification channel for technology assisted voting?

Please respond to the questions above in the following field. The word limit in this form field is approximately 5,000 characters, if more space is required please provide additional information as an attachment to your email.

- a) Yes High participation is a key feature of our electoral system relative to other countries. Arguably one of the reasons our democracy is so strong is because of our high participation. There is little doubt that compulsory voting is one of the main reasons we have such high participation. It is not appropriate to limit out of state electors to PV. It is clear PV and even when offered attendance voting out of state is on the wane. Remote TAV is the only alternative for these voters. See attachment 1.
- b) Yes remote TAV. See a)
- c) Registration should available up until 6pm on the day before election day and voting should be allowed until close of poll.
- d) Not possible to geolocate reliably but it would be appropriate for out of state voters to provide additional information to support their declaration that they are unable to vote any other way because they will be outside NSW on election day. It also would be reasonable to ask why they can not attendance prepoll.
- e) Given the prevalence of NSW electors having Service NSW accounts due to Covid I believe it is entirely appropriate to validate users at the time of registration using service NSW credentials. Less inclined to use MyGovID because of its complexity and has low penetration in the community. However MyGovID and MyGov login could be used as an alternative if someone does not have a Service NSW account or has trouble identifying themselves some other way eg with drivers license. Notwithstanding the desire to used these government credentials to identify electors for registering to vote it is not possible unless the credential is linked to the electors electoral roll record reliably. To my knowledge this link had not been done and would need to be done well before an election and fully tested. This type of data matching will also probably need special legislation which may be challenging given the the public's aversion to "Australia Card" type identification.

5. The risks and benefits of technology assisted voting to the integrity of the New South Wales electoral system, including the impact of technology assisted voting at different scales on the level of risk of technical error and on the rates of participation in New South Wales elections.

#### Questions

- a) Do you agree with the existing eligible elector classes in Section 152 of the Electoral Act? Do you have any further refinements to existing classes or additions of classes (please provide supporting evidence)?
- b) Do you have verifiable estimates of the potential number of eligible electors in the existing (and potential other) classes?
- c) Should there be a statutory formula for the assessment of materiality arising from technical error, for example the approach adopted by the Supreme Court in Commissioner v Kempsey Shire Council (No 2) [2022] NSWSC 282?
- d) What is the optimal method to balance risks and benefits of technology assisted voting, taking into account the different classes of eligible electors and the varying characteristics of elected forums, roles or decisions in New South Wales such as:
  - Legislative Council is a single electorate with 42 members elected by proportional representation for eight-year terms. Electors choose half the Legislative Council at each State General election. Electors may choose between above-the-line group vote or below-the-line votes for individual candidates.
  - Legislative Assembly has 93 members, each elected to represent an electorate via an optional preferential system.
  - Referendums require a binary yes/no response to each question
  - Local government arrangements vary by council according to the number of vacancies to be filled. An optional preferential system is used where only one councillor is to be elected. A proportional voting system is used if 2 or more councillors are elected. Where mayors are elected by electors (as opposed to councillors), an optional preferential system is used.
- e) Does technology assisted voting improve the enfranchisement (that is enrolment and voting of citizens in New South Wales) of particular classes of electors or in general?

Please respond to the questions above in the following field. The word limit in this form field is approximately 4,500 characters, if more space is required please provide additional information as an attachment to your email.

- a) Yes Current classes are adequate.
- b) No
- c) The approach of Commissioner v Kempsey Shire Council is a dangerous formula to set for any election. It can shown in Attachment 1 that if this formula were applied to PV for the 2015 SGE it is probable that both the LC and an LA district may have had to have been rerun. The simple fact is remote TAV is not the only voting channel to have problems preventing people from voting, it is just the channel which is highly scrutinised and publicised in the media.
- d) If a formula is to be developed for to determine what level of voting error would result in an election rerun then it is only appropriate to consider if the effected voter's voting pattern if continued would have caused a change in the electoral outcome with an acceptable confidence limit e.g. 90%. If this approach is applied it is quite probable that a referendum may not need to be rerun but LC may. This is because the margin used to elect the last candidate in a LC PR election is often very small relative to the number of electors voting in the contest. Similarly a small number of LA elections at an SGE also result in very small margins which could also result in reruns if the all voting channel electoral errors are considered.
- e) Yes TAV remote certainly helps interstate and overseas voters vote. This can be shown from the number of voters who elected to us iVote who were interstate and overseas that had the choice to PV but chose not to probably because they would not have had their vote returned in time for it to be included in the count. TAV is also the only way at present for certain disabled voters to have a secret ballot.

election and subsequent state an	id local government elections.	
uestion		
Taking into account the ECANZ Ele design of a technology assisted vot	even Essential Principles, are there any specific criteria that should be considered ting system for the 2027 election?	in the
lease respond to the question above more space is required please provid	e in the following field. The word limit in this form field is approximately $6,800cha$ ide additional information as an attachment to your email.	racters,
a) No the ECANZ Eleven Essential Fincluding PV.	Principles are fit for purpose. They should also be applied to all other voting chan	nels

6. The feasibility of making technology assisted voting available through personal networked devices at the 2027 State

7. The suitability of current legislation to support technology assisted voting and whether it should provide for special arrangements in the event of a technical failure (including, in appropriate circumstances, that the unavailability of technology assisted voting does not invalidate the result of an election).

#### **Question**

- a) Is legislative reform required in New South Wales to support the reintroduction of technology assisted voting in 2027?
- b) Should technical detail concerning vote verifiability be specified in legislation (for example software system design, computation and protection protocols in regulations)?
- c) Could, and if so how, additional scrutineering by election participants for technology assisted voting (and counting) be specified in legislation?
- d) Should legislation provide that performance issues with technology assisted voting during an election not be material to the validity of that election?
- e) If yes to (d), would a proportion of the eligible electors in the specific contest be an appropriate threshold where a statutory 'invalidity waiver' was in place?
- f) Should there be an overall cap on the proportion of electors eligible for technology assisted voting?

Please respond to the questions above in the following field. The word limit in this form field is approximately 5,200 characters, if more space is required please provide additional information as an attachment to your email.

- a) Yes to better define when electoral failure for any voting channel has occurred. See answer to 5 (d).
- b) No technical detail concerning vote verifiability should not be specified in legislation but general principals should be defined and independently audited. Note there will always be critics who will say what ever is done is not good enough. In my view these critics do not look at the comparative integrity of other voting channels such as Postal Voting. As such vote verifiability should be introduced for PV i.e. Postal Voters should be able to confirm their vote was included in the count and the vote preferences were counted correctly.
- c) More meta data about the efficacy of the election process should be made available publicly. This will allows analysts to assess the integrity of all voting channels. This will potentially show that PV has as many problems as TAV.
- d) In so far as possible for the finality of an election legislation should provide that performance issues with any voting channel, including TAV and PV, during an election should not effect the validity of that election unless their is material evidence the votes effected by the failure would have resulted in different electoral outcome.
- e) I believe it is appropriate to look at historical trends by voting channel and use the an appropriate to determine if the electoral result would have been different if the effected votes were included in the count on the balance of probability.
- f) Yes I believe at this point in time for NSW LGE and SGE should have no more than 15% of the votes taken remotely either through PV or TAV.

8. Technology-related developments in electoral administrations in similar jurisdictions.  Question
a) Should any specific features be adopted from other jurisdictions to improve the framework for ensuring voter and system integrity in New South Wales?
Please respond to the question above in the following field. The word limit in this form field is approximately 7,000 characters, if more space is required please provide additional information as an attachment to your email.
a) Yes I believe it would be appropriate to adopt a similar approach to that used in Norway for electronic voting and have the Electoral Matters Committee appoint a independent board of experts who can gather data and assess the efficacy of the electoral process related to remote voting ie PV and TAV. This board would only report to the Electoral Commissioner during the election and to the Electoral Matters Committee during its hearings post election. It would not report publicly.

the Commonwealth.  Questions
a) Should a national approach be adopted to provide an Australian-wide capacity to offer technology assisted voting?
b) If yes, what governance model should apply to it?
c) How might it be funded?
Please respond to the questions above in the following field. The word limit in this form field is approximately 6,500 characters, if more space is required please provide additional information as an attachment to your email.
a) Yes a national approach be adopted to provide an Australian-wide capacity to offer technology assisted voting.
b) There is currently an organisation which provides a template for governance of a national election technology and roll management authority. The organisation is Geoscape Australia which is the trading name of PSMA Australia Limited, a self-funded public company owned by all Australia's governments. Geoscape collaborates with state and federal government agencies to delivering spatial data which enables economic, social and environmental outcomes across the economy. This model could be used to allow a national approach to TAV and to other aspects of electoral management such the management of the national roll.
c) Currently the national roll is funded under the joint roll agreement, Given this situation it is appropriate that a similar approach be taken to fund the national TAV and roll management initiative. A portion of the funding should be seen as research funding and be provided federally to under pin the viability of the new entity.

See Attachment 1.		
would content all v	oting channels have potential for failure and as such any changes to legislation to deal with failure should	d be
roader than just TA	N.	
urrently all voting or emote TAV is consi	ame level of scrutiny given to remote TAV voting channel, is also given to channels other than remote TA channels other than remote TAV are often considered by the media to be perfect (the gold standard) whil idered high risk. This, in my view, is not a fair representation of our current electoral environment. The fanave a potential for failure, it is just that remote TAV failures are more visible to be public and as such more dia's eye.	le ict is
	leed any TAV is to be assessed fairly for introduction into NSW elections then we have to be more le failures experienced in all voting channels not just TAV to allow the best policy decisions to be made.	

10. Are there any other matters you wish to raise in the review?



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#### Attachment 1

## Postal Vote Failures at 2015 SGE

**Submission by Ian Brightwell** 

for

#### **Technology Assisted Voting Review**

#### Contents

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## Introduction

Given all voting channels have the potential for failure it is important that we do not only focus on Technology Assisted Voting (TAV) channels only when looking at legislation changes to deal with failure. It is important the same level of scrutiny given to remote TAV voting channel, is also given to channels other than remote TAV.

Currently all voting channels other than remote TAV are generally considered to operate perfectly (gold standard) while remote TAV is considered high risk. This position, in my view, is not a fair representation of the risks in our current electoral environment. I contend that all voting channels have a potential for failure, it is just that remote TAV failures are experience a higher level of media and academic scrutiny and as such gain more public notoriety.

This attachment has been prepared to show that the Postal Vote (PV) did experience failures at the 2015 State General Election (SGE) which were similar in electoral outcome to the failures experienced by iVote at the 2019 LGE. It will also show that failure of the PV experienced at the 2015 SGE could potentially raise questions about the result of at least one Legislative Assembly (LA) and the Legislative Council (LC) contests.

The data used for the analysis in this attachment is from the "SGE 2015 Postal Vote Election transaction data" set held on the Data.NSW website. This data set identifies every PV application in

<sup>&</sup>lt;sup>1</sup> "SGE 2015 Postal Vote Election transaction data" from the Data.NSW website

a depersonalised form showing the status of each application at various stages through the voting process.

If remote TAV or indeed any TAV is to be assessed fairly for introduction into NSW elections, then we must be comparing risks fairly, to do this we must be more transparent in documenting the failures experienced in all voting channels not just TAV.

#### Remote TAV vs PV Process

In 2011 and 2015 elections the remote TAV processes were modelled largely to mimic the PV process. This was done intentionally to try and capitalise on elector familiarity and trust in the PV process.

Effectively Remote TAV and PV processes have two main stages – registration and voting.

In the case of TAV the registration process at the 2015 SGE used the same system used by the PV system for those electors who wanted to PV but were not General Postal Voters (GPV). If a GPV wanted to iVote they could also register for an iVote.

The registration process had a similar outcome for both TAV and PV. It identified the elector and their address details and created blank ballots for the elector to complete and return. In the case of TAV blank ballots was created and loaded into iVote and a credential to access the vote was sent to the elector separately while in the case of PV the elector was sent a declaration pack which contained blank ballots which were placed in an envelope and mailed to them at the requested address.

The voting process only differed between the TAV and PV channels in that the TAV vote was done using the elector's own computer and returned over the internet while the PV vote was completed by the elector by filling out blank ballots and returning using the provided envelop which also contained a declaration. Note the declaration needed also to be completed correctly.

#### Remote TAV Failure at LGE 2019

I understand that at the LGE 2019 iVote failed on election day because an unplanned and tested number of electors tried to register and vote on election day.

In hind site this was a predictable outcome given the nature of LGE where there are no other options for out of LGA voters to vote on election day, other than at Sydney Town Hall and this is always very busy. Notwithstanding the inevitability of the situation, it still happened, and the effect was a significant number of electors who registered to vote on iVote were unable to vote and did not vote any other way at the election.

The failure of iVote resulted in the Commissioner requesting the Supreme Court to decide on the validity of some LGE elections which resulted in several elections being rerun.

The key issue the court considered was whether the number of electors who were denied a vote could have affected the outcome of the contest had they been able to vote.

 $\frac{https://data.nsw.gov.au/search/dataset/ds-nsw-ckan-2e0b6b06-80a8-4a7e-8590-5f66e4d7891c/details?q=2015$ 

#### PV Failure at SGE 2015

As discussed in earlier section remote TAV and PV have very similar processes. They both need an elector to register before they are able to vote. When an elector is registered for a PV they are sent a Postal Vote Declaration (PVD) which contains blank ballots and declaration. If the elector does not receive or return the PVD then the vote will fail, and the failure is in effect the same failure experienced at the LGE 2019 when iVote did not create iVotes and/or sent iVote numbers to registering electors.

When we examine the data for the SGE 2015 we can see in the following table all the electors who registered to PV and what they subsequently did. The highlighted value shows that some 22,500 electors registered for a PV but did not receive or did not return their PVD did not vote any other way.

Table 1 Licelois will well registered to receive i	Table 1 – Electors	who were	registered t	to receive PV
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	PVD	PVD Not	PVD Not	PVD	Grand
	Accepted	Returned	Sent	Rejected	Total
Absent		5040	370	143	5553
DI Ordinary		1236	65	85	1386
Enrolment		175	20	10	205
iVote		17994	594	708	19296
NAMAV		15	1	2	18
NNOR		39	5	2	46
Not Voted		22500	1438	10622	34560
Ordinary		11247	2148	280	13675
Postal	203575				203575
Pre-poll Ordinary		14966	2036	604	17606
Silent		2137	2	52	2191
	203575	75349	6679	12508	298111

It is also interesting to note that there were some 10,622 electors who returned their PVDs only to have their vote rejected and did not vote any other way. This situation does not occur with remote TAV because the vote capture process authenticates the vote at the time of voting.

#### Legislative Assembly (LA)

The Distribution of Preferences (DoP)<sup>2</sup> winning margin for Gosford district was 203 votes at SGE 2015 (HOLSTEIN Chris 21,826 lost to SMITH Kathy 22,029). This margin is less than the 261 electors who were sent PVDs but did not vote at all and did not PV because they either did not either receive their PVD or it was not returned.

If we apply the logic used in the 2019 LGE Supreme Court decision, then it is possible that this election would need to be rerun because the number of disenfranchised voters is greater than the winning margin.

<sup>&</sup>lt;sup>2</sup> NSW STATE ELECTION RESULTS 2015 - Gosford - Distribution of Preferences https://pastvtr.elections.nsw.gov.au/SGE2015/la/gosford/dop/dop/index.htm

#### Legislative Council

If we take the number of electors who could not vote because they did not get their PVD from (Table 1) as 22,500 and apply that to the SGE 2015 LC election results<sup>3</sup> we find that the winning margin between the last candidate elected PEARSON Mark with 91,420 votes and the next closest candidate JONES Peter with 88,243 votes is 3,177. We can see this winning margin is significantly less than the 22,500 Postal Voters who did not vote because they did not either receive or return their PVD and did not vote any other way.

Again, if we apply the type of logic used in the LGE 2019 Supreme Court decision, then it is possible that this election would need to be rerun or some kind of runoff election would be needed to determine the last candidate to be elected.

## **Overseas Voting**

PV does not perform well for overseas voting. Table 2 shows that at the 2015 SGE some 5,188 PVDs were sent to overseas electors and from these PVDs only 129 votes were accepted into the count. It is interesting to note that of the overseas PV who were sent PVDs (mostly GPV electors) who did not successfully PV some 2,628 iVoted and 2,664 did not vote at all at the election. Also, it is interesting to note that 5089 overseas GPVs either failed to PV or voted using another voting channel.

Table 2 – Postal Vote Applications (PVA) by destination of votes and Vote Type made

							Grand
	Interstate	NSW		Over	seas		Total
					Paper		
Vote Type			GPV	Online	PVA	Total	
Absent	59	5383	108	1	2	111	5553
DI Ordinary	5	1381					1386
Enrolment		194	11			11	205
iVote	432	16236	2379	64	185	<mark>2628</mark>	19296
NAMAV		18					18
NNOR	1	45					46
Not Voted	909	31087	2112	129	323	<mark>2564</mark>	34560
Ordinary	139	13161	354	5	16	375	13675
Postal	2223	201223	67	16	46	<mark>129</mark>	203575
Pre-poll Ordinary	93	17453	55		5	60	17606
Silent	4	2184	3			3	2191
Grand Total	3865	288365	<b>5089</b>	215	577	<b>5881</b>	298111

#### Conclusion

The above analysis shows that PV has similar or higher potential to fail as remote TAV. The problem with remote TAV failures are that they are much more easily identified than PV failures and as such susceptible to media attention and greater public scrutiny. This unfortunately means that in the mind of decision makers remote TAV is more unreliable than PV and as such PV is the preferred option. I contend this approach does not an reflect accurately the relative risk of each channel.

<sup>&</sup>lt;sup>3</sup> NSW STATE ELECTION RESULTS 2015 - LC - Distribution of Preferences - Cnt 391 https://pastvtr.elections.nsw.gov.au/SGE2015/lc/state/dop/dop\_cnt\_391/index.htm

PV and remote TAV are both susceptible to failure and both could cause an election to fail. It is important that our electoral legislation provides reasonable safeguards against election failure in the event of that any voting channel malfunctions and causes voters to be disenfranchised.

We need to ensure that legislation allows for small failures in the electoral processes, whether PV or remote TAV voting channels or indeed any other channel. I would suggest that legislation should be drafted to ensure that the available trend data is used to determine the probable outcome of the election in the event of failure of a part of the electoral process.

Given the greater availability of electoral data and more people interested in analysing it we can reasonably expect that more problems with the electoral process will be identified and more disputes like those identified at the LGE 2019 will be used to argue for a rerun election.

If we allow failure to be the norm rather than the exception and allow rerun elections, then we reduced the ability of elections to be finalised and the resilience of our electoral system and create a vulnerability for attack by external parties. This vulnerability could seriously affect confidence in our electoral system and potentially our democracy in the longer term. It is important we get this legislative change right.