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Electronic support for the electoral process

2.1   There are many aspects of the electoral system that can be enhanced with better utilisation of electronic technology. Not only can these changes improve the voter experience, critically, they can also enhance security and therefore build further confidence in our electoral system.

2.2   The Australian Electoral Commission (AEC) already makes use of online enrolment, and trials of electronic certified lists, to replace the traditional paper electoral roll in polling places, were successfully undertaken during the 2013 election, the 2014 Griffith by-election and the 2014 Western Australia (WA) Senate election. There is also potential for the use of existing scanning and character recognition software to support the counting and storage of ballot papers.

Electronic certified lists

2.3   Federal certified lists are the compiled electoral rolls for each division, completed after the close of rolls period (currently seven days after the issue of the writs for a federal election). The lists are an essential part of election day and are used to manually mark-off a voter as having attended a polling place and having been issued a ballot paper.

2.4   Certified list data is used in AEC systems to conduct:

- 'preliminary scrutiny' of a declaration voter's eligibility to vote and admission of their vote to the count; and

- post-election day comparison of the electoral roll and marked certified list data to identify non-voters or individuals having voted multiple times.

2.5   These lists are custom-printed for each division, then distributed to every relevant static polling place, pre-poll centre and mobile voting team in the country. The manual mark-off of these paper lists has become a familiar part of the process of voting in Australia.

2.6   The AEC commenced a pilot trial of electronic certified lists (ECLs) at the 2013 election, as well as at the following Griffith by-election and 2014 WA Senate election. These trials also resulted from recommendations of the previous Electoral Matters Committee in relation to the conduct of the 2010 federal election.

ECL trials

2.7   For the trials, the ECL involved a custom-made software platform consisting of an electronic copy of the certified list on a laptop used in polling booths in place of the paper list:

> ECL devices used a mobile broadband network which allowed the AEC to more efficiently and accurately search for and mark names off the electoral roll, reducing electors' queuing times, among other benefits. Certified list data was loaded onto laptops and a range of features were trialled in various polling situations to determine how the technology could best be used on a wider scale. ECLs provide the ability to search for and mark an elector's name off the certified list, provide real-time update to a central copy of the certified list when network connectivity is available, print House of Representative ballot papers on-demand and record that a declaration vote has been issued.[1]

2.8   For the 2013 federal election, a total of 768 ECL devices were deployed to different locations across Australia to be used for both vote issuing and preliminary scrutiny. Following the 2013 election pilot project the AEC concluded that:

> During the pilot, a sample of electors was surveyed to assist the AEC in identifying both the success of the ECLs and electors' confidence in the voting process. Eight polling places using ECLs were included in the research; seven on election day and one during pre-polling. The survey results showed that ECLs tended to improve voter satisfaction in terms of how easy and quick it was to find and mark electors' names off the list. Those casting a vote at an ECL location were much more likely to be 'very satisfied' with the length of time taken to vote than at non-ECL locations; 83 per cent in ECL locations, compared with 56 per cent.

1   Australian Electoral Commission (AEC), *Submission 20.3*, p. 71.

> However, pre-poll voters surveyed were less confident that their personal information and privacy was kept safe and secure in ECL locations than those in non-ECL locations; only 66 per cent reported that they were very confident in this instance where there were ECLs, compared to 82 per cent in non-ECL locations.[2]

2.9   ECLs were also used at the Griffith by-election and WA Senate election. In respect of these trials the AEC reported that:

> At the 2014 Griffith by-election, 145 ECLs were then used at all ordinary issuing points and 230 ECLs were also used at the 2014 WA Senate election for all remote mobile polling, the majority of pre-poll voting and at the Perth Superbooth on polling day at ordinary and declaration issuing points.[3]

2.10   There have also been calls for ECLs to be utilised in elections as a method of combating multiple voting. The pilot projects have been successful in reducing the incidence of multiple marking off of lists.

2.11   A number of benefits of the ECL platform have been identified including:

- improvements in marking of certified lists and fewer associated errors;
- reduction in the need to transport and scan paper lists;
- alignment with contemporary systems at state and international levels;
- electronic monitoring of pre-poll and mobile polling activity;
- ease of transport for mobile teams; and
- improved accuracy and speed in processing and counting declaration votes.[4]

2.12   These are considered further below.

Benefits of ECL use

2.13   There are two primary benefits to the use of ECLs:

- lower marking error rates made by polling officials; and
- lessen the opportunity for deliberate multiple voting through:
  ⇒ identifying those attempting to vote multiple times as they attend a second and subsequent polling booth; and
  ⇒ identifying those trying to vote in another person's name.

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2   AEC, *Submission 20.3*, pp. 72-73.

3   AEC, *Submission 20.6*, p. 32.

4   AEC, *Submission 20.3*, pp. 33-34.

2.14   During the 2013 federal election, 18 770 multiple marks (persons marked off the electoral roll more than once) were identified. The AEC wrote to all electors identified and of these multiple marks:

- 10 671 were attributable to polling official error;

- 2 013 electors admitted to multiple voting;

- 6 000 have still not responded or responded inadequately and remain unresolved.[5]

2.15   The issue of multiple voting will be addressed in the Committee's final report. However, the use of ECLs offers the potential to identify these instances as they occur.

2.16   The other benefits to the use of ECLs are:

- reduction in the use, and cost, of paper list production;

- alignment with other Australian jurisdictions and collaboration potential; and

- improving the speed and accuracy of counting and scrutiny of the admissibility of declaration votes—which will again identify potential multiple voters at a stage before votes are admitted to the count.

Lower error rates associated with certified list marking

2.17   A significant number of apparent roll mark-offs that would seem to indicate multiple voting incidents is attributable to official error (an issuing officer marking a certified list incorrectly). The use of ECLs would offer a significant reduction in the official error rate.

2.18   The 2014 Griffith by-election offered an opportunity to test for the impact that exclusively using ECLs can have on the error rates for vote issuing and potential multiple voting, as well as any other associated benefits or problems.

2.19   The AEC reported that, for the division of Griffith, the incidence of multiple marks on certified lists between the 2013 election and the by-election reduced by 75 per cent—down from 180 for the 2013 election to 44 for the by-election.[6] This reduction in multiple marks is an improvement over the usual results for a federal division in an election where an identical paper roll is used in every polling place.

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5   Senate Finance and Public Administration Legislation Committee, Additional Estimates 2013-2014, *Answers to Questions on Notice*, Question F69, 11 April 2014. Marie Neilson, Assistant Commissioner, Elections, AEC, *Transcript of Evidence* from Senate Finance and Public Administration Committee, 29 May 2014, Canberra, p. 116.

6   Marie Neilson, Assistant Commissioner, Elections, AEC, *Transcript of Evidence*, 31 July 2014, Canberra, p. 14.

2.20   The effort, time and resource savings from reduced numbers of multiple marks should be substantial, especially with the multifaceted response required by the Electoral Act in investigating marks, writing to voters, compiling evidence, and actioning referrals of multiple voters to the Australian Federal Police. These follow-up actions constitute a substantial commitment of time and effort by the AEC and delay the finalisation of election work.

2.21   There is an additional associated benefit stemming from ECL use in that a lower incidence of incorrect mark-off should result in lower associated numbers of incorrectly identified non-voters. More accurate search and mark-off of voters from ECL devices means that the incidence of the same person being marked off two paper certified lists in error is lowered, potentially also lowering the incorrect identification of the voter as a non-voter.

2.22   Currently the AEC investigates both potential non-voters and multiple marks after each election. Reduced incidence of incorrect mark-off resulting from ECL use should lead to fewer non-voter investigations, resulting in significant time and resource savings in that area of post-election activity.

Less opportunity for deliberate multiple voting

2.23   For any person who wishes to deliberately break the law by voting multiple times, it is relatively easy for that person to attend multiple polling places and assert that they have not voted elsewhere. It is only when the paper lists from for the division are compared after the election that such examples of apparent multiple voting can be identified.

2.24   The universal use of ECLs would go some way to eliminating this problem. On the first occasion that a person attended a polling booth, their name would be marked off the list and this would be automatically marked off in the electronic roll central database which would then be reflected in every polling place.[7]

2.25   Should that person or someone else seeking to vote in their name then attend another polling booth, they would be unable to cast an ordinary ballot and would be referred to cast a declaration vote. This could then be prevented from being admitted to the count upon verification that they had already voted, and would at least identify a problem at the second instance – whereas with a paper-based roll there are theoretically as many multiple voting opportunities as there are polling places within a division.

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7   This is reliant on the ECL having a network connection.

Paper list reduction

2.26   While there was no reduction in the supply of paper certified lists during the recent election trials due to the need for a backup in case of ECL failure, longer-term reductions in the supply of paper lists should result over time from wider ECL use.

2.27   The current requirement to scan the paper lists after every election in order to electronically capture the data that identifies correct marks, non-voters, or multiple marks, also adds a further logistical dimension to paper certified list usage, as well as additional cost, as third-party contractors must be engaged to undertake the scanning and data capture process.

2.28   The requirement to physically transport certified lists across the country and with mobile voting teams would be eased with the usage of ECLs. The other added advantage of ECL usage here is that one device can hold certified list data for all divisions; this would lessen the requirement for teams to take multiple lists if transitioning between divisions or taking interstate votes, enabling the AEC to better direct and allocate its resources.

2.29   ECLs were capable of producing an emergency stock of ballot papers, or stock of other division ballot papers, during the 2013 election. If this functionality was continued, transport burdens would be reduced even further. Ballot paper security, custody and verification must remain a key priority; but there is potential for real benefit and cost savings.

2.30   The use of ECLs has the added functionality of digitising the capture of polling activity (number of votes issued, time taken for queues to progress) as well as monitoring productivity and digitising the recording of activity at certain times of the day. The recording of this data has been manual in the past, with Officers-in-Charge of polling places recording work levels and votes issued; there has also been a requirement for those records to be communicated to the Divisional Returning Officer and entered into the relevant election IT systems. Reducing the administration associated with this work would leave Officers-in-Charge more time to manage other important polling day activities such as the safe storage and handling of ballot papers.

Alignment with other jurisdictions and collaboration potential

2.31   Electronic support systems similar to ECLs, for marking voters off certified lists, already exist in other states and territories. All states and territories have trialled or are using some form of electronic roll look-up or mark-off system, for either state or local government elections – for instance the ACT has used electronic mark-off during elections since 2008

(both on PDAs and laptops) and NSW has had an evolving system since 2007 (starting with look-up only, to mark off systems).

2.32   Some state/territory electoral commissions are also actively monitoring the outcome of the ECL trial for the federal election prior to investing in similar systems.[8]

2.33   This usage of electronic roll mark-off systems at the council and state level builds awareness of technological improvements in voting systems. Voter familiarisation with these types of systems could smooth the transition to wider ECL usage federally, as could the presence of polling officials familiar with electronically-aided vote issuing.

2.34   There has been limited sharing of resources in this space in the past, with the AEC sharing roll personal digital assistant architecture with state electoral commissions. Shared development and a commitment to enhancing electoral roll integrity and harmonisation can be further supported by a collaborative approach to expansion of ECL systems and architecture.

Counting and scrutiny benefits

2.35   ECLs can be used for preliminary scrutiny of declaration vote envelopes (where a voter's eligibility to have their vote admitted is tested) and were used extensively at the 2013 election, the Griffith by-election and the 2014 WA Senate election.

2.36   The preliminary scrutiny of the declaration votes process requires intensive scrutiny of enrolment eligibility. Electronic support for this process through ECLs proved very useful for the speed of processing and for the accuracy and consistency of decisions on whether to admit a declaration vote or not.

Expansion of ECL use

2.37   Given the trial nature of ECL development and deployment up until now, the AEC developed the ECL application software itself, but the hardware was leased and logistics support was provided by third parties. This resulted in a $1 400 per unit cost, which would be unsustainable into the future if any expansion was considered.

2.38   The AEC has expressed the view that, with further resourcing and development, the ECL function is scalable; however, without further

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8   Northern Territory Electoral Commission, *Annual Report 2012-2013*, p. 23.

development, costs and implementation impacts can only be calculated based on the trials.[9]

2.39   The AEC provided detailed information on the barriers to, and costs of, universal expansion of the use of ECLs in the future. In summary, a wholesale roll-out of ECLs in their current software and hardware configurations would be prohibitively expensive, with indicative costs of over $65 million for deployment to all 150 divisions.[10]

2.40   With an overall cost for the 2013 federal election of approximately $191 million, an increase in costs of that magnitude in regard to certified lists alone is not justifiable.[11]

2.41   The AEC has indicated that a full deployment of ECLs to all mobile voting teams, which benefit greatly from the reduced inventory an ECL creates, and to all pre-poll voting centres for the next federal election, would be an appropriate next step in development and would cost approximately $12.8 million based on the current platform.[12]

Committee comment

2.42   ECLs offer significant benefits for the delivery of election support services through an improvement in the timeliness and accuracy of roll mark-off management, reduction in paper lists, alignment with other jurisdictions, improvement in the management of declaration votes, and a reduction in the work associated with post-election activities such as scrutinising lists for multiple votes or non-voters.

2.43   The Committee is of the view that ECLs are an important step forward in improving election delivery in Australia and are worthy of significant investment by the Australian Government. The very positive response from surveyed voters participating in the 2013 election ECL trial in respect of satisfaction with reduced voting time is significant.

2.44   At the same time, the doubts expressed by one-third of the surveyed ECL trial pre-poll voters regarding the security of their personal information and privacy in ECL locations are salutary, and point to the crucial importance of ensuring security and integrity of voter information as well as the wisdom of caution in relation to electronic voting beyond electronic support.

2.45   Targeted further development of ECLs should allow the AEC to invest in improving the ECL platform and also concentrate on making the platform

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9   AEC, *Submission 20.6*, p. 32.

10   AEC, *Submission 20.6*, p. 38.

11   AEC, *Submission 20.3*, p. 133.

12   AEC, *Submission 20.6*, p. 38.

more robust when mobile, and potentially deliverable across multiple types of devices (the current ECL platform requires a standard laptop). The development of this further platform could also potentially inform growth and development in other Australian jurisdictions.

2.46   As the use of ECLs becomes more widespread, there should be the capacity for the AEC to use the data from them to generate statistics to improve the voting experience, including for example, a prediction of queue waiting times based on the average elector flow through a polling place. This could be used to generate a live website feed so that electors can plan their time accordingly. This functionality should be considered in the further development of ECL technology.

2.47   The Committee is therefore recommending that ECLs be deployed to all pre-poll voting centres and mobile voting teams at the next federal election. This should be with a view to eventual universal implementation at subsequent elections. This will require a resourcing commitment.

Recommendation 1

The Committee recommends that the Australian Government adequately resource the Australian Electoral Commission to deploy electronic certified lists where possible to all pre-poll voting centres and to all mobile voting teams at the next federal election.

2.48   The cost of universally implementing ECLs based on trial costs with leased hardware is clearly prohibitive; however no dedicated work has been done on the cost of the AEC owning the hardware and therefore balancing the up-front cost over multiple elections. Nor has any detailed cost analysis been provided to the Committee on the potential cost savings generated by the reduced workload time and staff requirements for preliminary scrutiny when supported by ECLs. This work should be undertaken.

2.49   The Committee is also of the view that there may be more cost effective ways to develop this technology including shared use of infrastructure between jurisdictions. This would not only facilitate the sharing of resources but also support existing electoral roll harmonisation efforts.

2.50   This is also an area that could make use of an internet-based platform (rather than exclusive device-based software) so the existing networks in polling places (such as school and council computer systems) could be utilised.

2.51   The electoral roll can currently be accessed by a variety of stakeholders
        including elected Members of Parliament from any networked computer.
        There should be some capacity to extend this platform for use as an
        electronic certified list at an election.

Recommendation 2

**The Committee recommends that, after the next federal election, the
Australian Electoral Commission undertake a full cost benefit analysis
of utilising electronic certified lists at all polling locations based on a
permanent investment in the relevant technology and/or the
development of a platform that can be accessed from any networked
computer, with a view to full implementation at future elections.**

Recommendation 3

**The Committee recommends that the Special Minister of State propose
to the states and territories that the further development of electronic
electoral roll mark–off systems be undertaken in a collaborative
approach to facilitate the sharing of resources.**

2.52   Further, the Committee is aware that legislative change may be required
        to allow for the use of electronic certified lists as a form of approved list
        for marking electors who have been issued a ballot paper.

Recommendation 4

**The Committee recommends that relevant sections of the
Commonwealth Electoral Act 1918 and the *Referendum (Machinery
Provisions) Act 1984*, be amended to allow for the expansion of the use
of electronic certified lists as a form of approved list for marking
electors who have been issued a ballot paper.**

Online enrolment

2.53   Electors now have the ability to enrol and update their enrolment details online. The AEC noted that:

> At the 2013 election, more than 85 per cent of all enrolment transactions lodged by electors between announcement of the 2013 election on 3 August 2013 and close of rolls on 12 August 2013 occurred online through the AEC Online Enrolment Form (OEF).[13]

2.54   The ease of online enrolment/update is considered a contributor to the increase in enrolment for the 2013 election,[14] and in the 2013 close of rolls period the rate of online enrolment (534 451 persons) significantly outweighed the rate of enrolment by any other source (92 805 persons).[15]

2.55   The success and popularity of this online innovation indicates that voters feel confident engaging with the AEC online. These advances are important to continue to build confidence in the use of technology in relation to the electoral system.

Management of ballot papers

2.56   There are two areas in the management of ballot papers that could be assisted by technological investment:

- digital count; and
- digital storage of ballot papers.

Digital count

2.57   A further opportunity to support the electoral process is to use scanning technology to both count and store ballot papers. The Australian Capital Territory (ACT) Electoral Commission uses a scanning system for the count of ballot papers and recommended it for its high degree of accuracy in the count:

> On the counting side of things I think the Senate experience at the last election would get a lot more benefit out of our scanning system than it would out of our electronic voting system … It is

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13   AEC, *Submission 20.3*, p. 11.

14   AEC, *Submission 20.3*, p. 55.

15   AEC, *Submission 20.3*, p. 149. Other sources include division and post office issued forms (46 067); forms downloaded from the Internet (13 114); direct enrolment and update (10 037); State electoral (6 727); mail review and change of address notices (5 837); citizenship ceremonies (3 680); Transport authorities (1 380); other sources (5 963).

> quite obvious that a scanning system that is using computers to verify that the preferences on ballot papers have been correctly recorded is far superior to a hand count of ballot papers even when looking at just single first preference above the line. A scanning system is going to give you a much more accurate count than a hand count will.[16]

2.58   Elections ACT officials scan all paper ballot papers and the votes are read by Intelligent Character Recognition software. Electoral officials check the computer interpretation against the paper ballot and make any required corrections.[17] Scrutineers are able to observe all steps of this process.

2.59   The AEC also submitted that Optical Character Recognition (OCR) software and scanning hardware would be a good opportunity for investing in technology to aid counting processes.[18] The ACT Electoral Commission has found a twofold effect of improved workforce management and the speed of the count:

> An issue we found with data entry was that people with the skills to do data entry are getting harder and harder to find because it is not something that is out there in the larger workforce these days now that there is scanning and people are doing things directly online. There just is not a large casual workforce of people with data entry skills out there. So we decided at the 2008 election that we would use optical character recognition scanning. We also used that at the 2012 election. We were very pleased with the scanning system that we adopted at the last two elections. The speed with which we were able to get the count completed was pretty much the fastest that we could have completed it. In the ACT we are able to take postal votes up until the Friday after polling day—so six days after polling day—which means that you cannot strike the final count and do the final distribution of preferences until you have counted all the postal votes. Both in 2008 at 2012 we were able to finish the data entry of all the postal votes and error corrections of all the paper ballots on the Saturday after polling day. In 2008 we were able to finish the count in the middle of the afternoon on Saturday after election day. In 2012 we beat that by a few hours. We finished by about lunchtime on Saturday. That is

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16   Phillip Green, ACT Electoral Commissioner, *Transcript of Evidence*, 29 July 2014, Canberra, p. 10.

17   Elections ACT, *Frequently asked questions*, accessed 28 October 201 <elections.act.gov.au/elections_and_voting/electronic_voting_and_counting/faq>.

18   AEC, *Submission 20.3*, p. 76.

> about as fast as you can count an election such as ours where you
> have to wait for postal votes.[19]

2.60   Greater accuracy in initial counting and scrutiny of votes, in potentially
        both House of Representatives and Senate elections, is an attractive
        prospect. The ACT Electoral Commissioner argued that accuracy is
        significantly improved in an electronic counting system:

> I am saying a scanning system will give you a much more accurate
> count than a hand count will every time. If you look at the recount
> figures that are available on the AEC website, which simply lists
> those polling place total numbers that were counted in the first
> count and compared it to the total number of ballot papers
> counted in the second count, you see they made miscounts in
> every division in Western Australia and miscounts in more than
> half of the polling places, and we are just talking counting first
> preference votes above the line—single-ticket votes. Hand
> counting and hand sorting using humans alone is an error-prone
> thing. This is what we found in 1998. If you look at the result of the
> recount in Western Australia, you can see that hand counting even
> a single first preference on a ballot paper is something that human
> beings are not very good at. Computers are very good at it.[20]

2.61   Efficiencies to be gained in scrutineer access to ballot papers and eventual
        storage of ballot papers are also a potential advantage.

2.62   The ACT Electoral Commissioner described the process the ACT uses to
        scan and scrutinise its ballot papers, whereby the system identifies and
        isolates ballot papers that are likely to require further scrutiny:

> That is the point on which scrutineers are able to focus their
> attention, because they are the ballot papers that are not really
> straightforward. So what it does is: if you think of comparing that
> to a hand count, every now and then in a hand count you are
> going to come up against a tricky one that scrutineers will be
> interested in, but you have another 50 that are straightforward, so
> it is not isolated as being something that is worthy of attention.
> The way our system works is: it isolates all those ones that
> scrutineers are really interested in. So I actually think it is a much
> better system for scrutineering, from the parties' and the

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19   Phillip Green, ACT Electoral Commissioner, *Transcript of Evidence*, 29 July 2014, Canberra, p. 5.
20   Phillip Green, ACT Electoral Commissioner, *Transcript of Evidence*, 29 July 2014, Canberra,
     p. 10.

> candidates' point of view, because it really homes in on the ones
> that are worthy of attention.[21]

2.63   Part of the difficulty with scanning ballot papers currently is the size of the
        Senate ballot paper. The AEC submitted that there are machines available
        that are capable of scanning the current dimension of Senate ballot paper,
        but, due to the size of the ballot paper, this technology is expensive and
        therefore unlikely to be able to be implemented at every polling place.[22]

2.64   Nonetheless, if a solution could be found for digitising ballot papers prior
        to any movement from a polling place, this would provide a solution to
        the ballot transport errors that occurred during the 2013 WA Senate
        election. The Committee also notes that if the recommendations of its first
        interim report are adopted, this should significantly reduce the size of the
        Senate ballot paper.

2.65   Australia Post submitted that there is current scanning and data capture
        technology that could support scanning and digitisation at various stages
        of the count process:

> There are four distinct stages in the count process that provide an
> opportunity for scanning and digitisation of electoral forms and
> associated content. Scanning has more benefits the earlier the stage
> selected, however associated costs would increase with a
> requirement for more infrastructure at those earlier stages.
>
> - The initial count: providing scanning and assessment of each
>   vote as part of the initial count (performed the night of the
>   vote). Scanning could be performed at each polling place and
>   would benefit from a large amount of scrutiny, and any
>   mismatches in total vote counts will automatically be identified
>   and assessed. Additionally, the risk of ballots being 'lost' before
>   digitisation will be minimised.
> - The scrutiny count: providing scanning and assessment of each
>   ballot as part of the fresh scrutiny (performed the Monday after
>   the vote). A digital representation of all votes could be created
>   for future reference.
> - The recount process: providing scanning and assessment of
>   each ballot where a recount process is initiated. As part of this,
>   ballots could be assessed at either an AEC premises or one of
>   Australia Post's secure specialist processing facilities
>   (physically supervised by scrutineers if necessary). This process
>   could incorporate an additional count of disputed ballots,
>   ensuring an accurate count, and could possibly be cross

21   Phillip Green, ACT Electoral Commissioner, *Transcript of Evidence*, 29 July 2014, Canberra,
     p. 12.

22   Tom Rogers, a/g Electoral Commissioner, *Transcript of Evidence*, 31 July 2014, Canberra, p. 14.

referenced against available voter rolls. It would not, however, identify ballots that had gone 'missing' between the place of voting and the place of scrutiny.

- After the declaration of results: conducting high speed scanning of all ballots at Australia Post facilities. This could be pursued to provide a backup of the vote for archival purposes after the vote has been completed.[23]

2.66   Models of scanning and counting of ballot papers are also utilised in international jurisdictions. While the ACT utilises the technology at the counting stage, in some Canadian jurisdictions the voter feeds their ballot paper through a scanner as part of the act of depositing the paper in a ballot box. The vote is immediately recorded and votes are tallied after the close of polls.[24]

2.67   In recent elections in New Brunswick, Canada, the Canadian leader in the use of this technology[25] some concerns were raised about this method of scanning and counting ballot papers, namely:

- As a vote is scanned, the machine 'beeps' if a person has not correctly completed their ballot paper and it has been argued that this violates the secrecy of the vote for those who actively choose not to complete or to 'spoil' their ballot paper; and[26]

- Scrutineers are not able to observe the count as it occurs as an individual is voting and there is no way to verify the vote is accurately scanned without compromising the secrecy of the ballot.[27]

2.68   These issues can be managed in the Australian context, as long as the principle of an open and transparent electoral system is kept at the core of any developments.

2.69   The experience of these jurisdictions raises important issues for consideration prior to any wholesale adoption of this technology. As is discussed in Chapter 3, international jurisdictions that have implemented electronic voting have found that an auditable paper trail is an essential component of any electronic voting system to ensure trust in the system.

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23   Australia Post, *Submission 174*, p. 9.

24   Elections New Brunswick, *Frequently asked questions: technology*, accessed 28 October 2014, <www1.gnb.ca/elections/en/faq/faq-e.asp?CATEGORYID=5&TYPE=1>.

25   Elections Canada, 'The New Brunswick Model', accessed 29 October 2014, <elections.ca/content.aspx?section=res&dir=cons/comp/crfr&document=d&lang=e>.

26   *The Voting News*, 'Canada: New Brunswick voting machines erode secrecy of spoiled ballots', accessed 28 October 2014, <thevotingnews.com/new-brunswick-voting-machines-erode-secrecy-of-spoiled-ballots-cbc-news>.

27   Antony Green, *Electronic tabulation problems at New Brunswick election*, accessed 28 October 2014 <blogs.abc.net.au/antonygreen/2014/09/electronic-tabulation-problems-at-new-brunswick-election>.

Likewise, scanning technology must be able to be scrutineered without in any way affecting the right to a secret ballot.

Digital storage

2.70   Currently, Senate ballot papers need to be stored for the life of Senate terms (approximately 7 years in total), which is not an insubstantial logistical and security requirement. If scanned images of the ballot papers were acceptable in place of the physical papers, this could result in storage cost savings as well as being kept indefinitely.

2.71   Such optimisation would also align with the Commonwealth's e-government focus, the priorities of the *Australian Public Service ICT Strategy 2012-2015*, and the Australian Government's Digital Transition Policy, which requires all agencies to move to digital records keeping.[28]

2.72   Section 393A of the Electoral Act provides for the preservation and custody of ballot papers after an election. For the purposes of this section, ballot papers become 'electoral documents', along with certified lists, declaration envelopes and other election- related items.

2.73   Current records destruction authority, expressed in the Normal Administrative Practice outlined in section 24 of the *Archives Act 1983* and exercised by General Records Authorities issued by Archives, along with the relevant Records Authorities issued to the AEC for the destruction of election, ballot and referendum materials[29] are currently silent on digital versions of ballot papers in respect of the current requirements for storage of 'electoral documents'.

2.74   In this regulatory context the digital storage of ballot papers requires careful consideration, as the legal status of scanned images of ballot papers would need to be determined. Original paper ballots would also need to be kept for a suitable period of time after the declaration of polls and the period for potential Court of Disputed Returns challenges has lapsed.

2.75   Nonetheless, the storage of scanned ballot papers could offer real benefit in terms of the savings associated with long-term leasing of storage facilities.

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28   The strategy is viewable at <finance.gov.au/policy-guides-procurement/ict_strategy_2012_2015/>, the Digital Transition Policy is outlined at <naa.gov.au/records-management/digital-transition-and-digital-continuity/digital-transition-policy/index>.

29   Records Authorities can be accessed at <naa.gov.au>.

Committee comment

2.76   The Committee supports the evolution of electronic support for the federal electoral process, and believes the most immediate and tangible benefits are likely to be gained in digitising facets of this process.

2.77   The successful use of online enrolment/update is also supported. These applications harness existing, secure technology in order to enhance the integrity of the electoral process.

2.78   The introduction of electronic counting, scanning and storage of ballot papers (along with expanding the use of ECLs) offers potential for a quicker process with greater accuracy, harnessing existing technology. Use of this technology will not only support the electoral process, but, as with ECLs, has the potential to assist in building community confidence in the use of technology for elections.

2.79   There is little risk associated with scanning ballot papers, indeed, it will be an enhancement by providing a further verification process to the manual count.

2.80   The Committee is therefore recommending that the AEC develop and trial electronically-assisted counting of ballot papers at all pre-poll voting centres at the next federal election. This should be with a view to expansion as widely as possible at future elections.

2.81   Any use of technology in association with the electoral process must have the principle of the sanctity of the ballot at its core, including upholding the right to a secret ballot and ensuring transparency in the counting process.

Recommendation 5

The Committee recommends the Australian Electoral Commission develop and trial the electronically-assisted counting of ballot papers at all pre-poll centres for the next federal election.

2.82   Further, if ballot papers are to be scanned, it may be possible to store digital ballot papers rather than paper ballots which may lead to a considerable saving for the Government in terms of expenditure on storage facilities. The Committee considers this proposal warrants further investigation, which may include amendments to the Electoral Act.

Recommendation 6

The Committee recommends that the Australian Government investigate the feasibility of digital storage of scanned ballot papers to replace storage of paper ballots.