REPORT ON PROCEEDINGS BEFORE

JOINT STANDING COMMITTEE ON ELECTORAL MATTERS

ADMINISTRATION OF THE 2019 NSW STATE ELECTION

At Macquarie Room, Parliament House, Sydney on Wednesday, 19 February 2020

The Committee met at 10:17 am

PRESENT

Mr Lee Evans (Chair)

Legislative Council   **Legislative Assembly**
The Hon. Ben Franklin   Mr Christopher Gulaptis
The Hon. Peter Primrose   Mr Paul Scully
The Hon. Courtney Houssos   Mr Nathaniel Smith
                                                                     Ms Felicity Wilson (Deputy Chair)

The CHAIR: Good morning and welcome to the second public hearing for the inquiry of the Joint Standing Committee on Electoral Matters into the administration of the 2019 New South Wales State election. Before we commence, I acknowledge the Gadigal people, who are the traditional custodians of the land on which we meet here in Parliament. I also pay my respects to Elders past and present of the Eora nation and extend that respect to other Aboriginal and Torres Strait Islander people who are either present or viewing the proceedings on the internet. I declare the hearing open.

ANTONY GREEN, Election Analyst, affirmed and examined

The CHAIR: Thank you for appearing before the Joint Standing Committee on Electoral Matters today to give evidence. Can you please confirm that you have been issued information about the standing orders in relation to the examination of witnesses.

Mr GREEN: Yes, I have.

The CHAIR: Do you have any questions about the information?

Mr GREEN: No.

The CHAIR: The Committee has received a submission from you. Would you like the submission to form a part of your formal evidence?

Mr GREEN: Yes. I will make a minor amendment on page 3. The proportion of postal votes in Federal elections, I will advise the staff afterwards, it is just a minor correction.

The CHAIR: Would you like to make a short opening statement?

Mr GREEN: Yes, certainly. First, I appear in a private capacity but, of course, I work for the ABC. Some of the matters I have concerning the counting of pre-poll votes—we have had some discussions about this, and the ABC and other media outlets are calm about whether it is decided to count pre-poll votes early or not; we will deal with it. I can give some advice. It is not an official opinion from the ABC, but having worked on elections for 30 years I have got a pretty strong working background in the area. I should also declare initially that I was engaged by the NSW Electoral Commission from mid-2018 to the election to offer technical advice on the new rules for counting Legislative Council ballot papers, to offer advice on what indicative preference counts to conduct on election night, and also to offer advice on key contests that needed extra resources for the lower House and to make some orderings on when postal votes were counted on the night. The Commission was very cooperative in arranging to ensure that the most important electorates, in terms of closeness, were counted more quickly than safer seats, and they did quite a good job.

I should also make a comment: On election night I made a comment about the count being extremely slow. After the event it was discovered there were some difficulties with votes coming from the Electoral Commission to the media. Some of that was the Commission's fault; some of it was the ABC's fault for not having verified that those feeds worked correctly beforehand. These are things that are technical issues which we have logged down for the future to make sure they do not happen again. But the differences in the counting procedures in New South Wales, where they would start data-entering ballot papers, means that some of the processes with feeds of those to the media worked very differently in New South Wales. Communication with the Commission about how that would all work and how we adjusted our website to deal with that all worked very well.

The thing I was turning onto, which I mentioned most in my submission, concerns the counting of pre-poll votes. The Labor Party, in their submission, said they would like to start counting pre-poll votes before 6.00 p.m., as they had done that in Victoria. As I point out in my submission, Victorians had not started to count the votes before 6.00 p.m. The way that Victoria does pre-poll voting means that all pre-poll votes, whatever district, are ordinary votes, so they have to sort the ballot papers on election night before they can count them. So the counting that was occurring before 6.00 p.m. was simply sorting; it was not counting. However, the Australian Electoral Commission [AEC] has made a submission to the Joint Standing Committee on Electoral Matters federally that they be allowed to count pre-poll votes beforehand. It has been hinted at by other commissions, so I thought I would raise the issue for the Committee to consider whether we should be starting to count some of those pre-poll votes before 6.00 p.m.

The NSW Electoral Commission was unable to finish all pre-poll counts on the night. Some finished all first preferences; some did not get onto two-candidate preferred; some completed them. The AEC managed to do all of them with much greater quantities. I suspect that is simply down to the number of counting staff, and the number of counting staff comes down to size of budget. So if the New South Wales Commission did not get round to it, I suspect it is just simply budget that is the issue. But it does raise the issue: Do you want people counting till midnight to get these votes in? It is clear in recent years the count is getting slower and slower on the night because we are waiting for these big pre-polls to come in late in the evening.

Some commissions are now suggesting we start counting in the afternoon and I think it is a reasonable idea. New Zealand counts their advance votes in the day. At the next election later this year, they expect to take 50 per cent of their votes as advance votes. They count them in the day and start to enter them after 7.00 p.m., when the polls close. The difference in New Zealand is no on-the-day campaigning, which means there is plenty of opportunity for scrutineers to attend the count. The difficulty in Australia if you count before 6.00 p.m. is what scrutineering is available. Admittedly, the parties most of the time do not do intense scrutineering on election

night. I have discussed this with Ben Franklin. There are situations in a three-cornered contest, like Ballina or Lismore, where the parties do want to do more detailed scrutineering to try and get an estimate of whether the preference counts are right or wrong. But in most cases the scrutineers are there just simply to get the count and report it.

I have put in my submission a set of guidelines that I suggest be used if we do start to count before 6.00 p.m. It only takes place in premises that can be secured, and that includes bathroom and kitchen access. If you have not got that security, then you cannot do pre-poll counting in that pre-poll centre or divisional office. Candidates and parties should be informed on place and the start time. Scrutineers should be required to hand over all electronic devices because this is to occur in secret. I have also suggested that the count be done in such a way that certain pre-poll centres be done first which can be finished before 6.00 p.m., so that at 6.00 p.m. the results can be reported. What I would hate to see is going back to the days where we are getting scrutineers' figures while we are waiting for the electoral officers' figures. I would not want to see, say, 12,000 votes being counted, it is not finished at 6.00 p.m., and the scrutineers come out and phone through what they have got instead of the full count being done.

So I think that if this is introduced, it should be done in such a way that the count can be finished to a certain extent and reported at 6.00 p.m. so that we are still getting official figures. It will change the way we run election counts. We will be getting a lot more counts right at the start of the night. But I do think, particularly at Federal elections where we have seen a surge of votes till eight o'clock or nine o'clock and then it slows down and then picks up again after 10.30 or 11 o'clock as the big pre-poll centres come in—I included a table in the submission just to point out the size of the problem. If you look at counting centres with more than 4,000 votes, there are 102 pre-poll centres and only three polling places with 4,000. That is a lot of extra staff to count 4,000 votes, which in polling places have already been allocated to run the polling place on the day. I am happy to take any questions on this or other matters to do with the election.

The Hon. BEN FRANKLIN: Mr Green, thank you very much not only for being here, as always, but for all the work that you do in providing a genuinely objective source of advice and psephology for all Australians. From your perspective, how detrimental is it not having the pre-poll numbers earlier, in terms of the picture that it paints for Australians—in this case, residents of New South Wales—when they are trying to understand the outcome of an election?

Mr GREEN: We need the pre-polls on the night. I have been doing some work on Federal figures. If you go back to the 1980s, the count would get to 75 per cent to 80 per cent of enrolled voters on the night. If you only count polling place results at Federal elections, that figure would have been 50 per cent at the 2019 election. It was still 76 per cent, but that was because the pre-polls were counted. So the pre-polls have to be counted. There is a huge volume of them and if you have got a close election and you are not getting the pre-poll results, then you are really going to be only at 50 per cent or 60 per cent of the count on election night. In a close result, that is not enough to be certain. You need more votes counted.

It is difficult to count them on the night with, as we have been talking about, the sheer size of these polling places. I have listed some of the largest pre-poll centres in my submission. To count those takes a long time and I think we should be able to count some of them earlier in the day. I suspect it is probably easier for the Electoral Commission to get staff to work from two until 10 rather than six until two in the morning. I think there are advantages to it and it certainly helps us to know the result. In some cases it will help us to know the result on the night. In Ballina, as you would well know, if you get the Ballina pre-poll or the Murwillumbah pre-poll you will get a very different pre-poll result in that polling place. For us working in the media, we still want to know where that vote is from.

New South Wales is very good, as with the Commonwealth, that each pre-poll centre is counted separately. We have had difficulty with the Victorian Electoral Commission that only reports one number for all pre-polls. In some Victorian electorates the pre-poll can be 33 per cent, 34 per cent, 40 per cent of the overall vote, so getting one lump of 40 per cent is a huge count. I think it is good that there are pre-poll centres. I think it is important that we do know as best as possible a result on the night. The counting procedures to get first preferences and two-party preferences are there, but the fact we do not start these giant pre-polls until after six means that, like in New South Wales, they did stop counting at 10 o'clock. There was some big pre-polls which had not come in by 10 o'clock and certainly had not got two candidate preferred. We would have a better chance of getting those in if they were allowed to count them earlier in the afternoon.

The Hon. BEN FRANKLIN: I was a little bit nervous when you said in your submission:

> Early pre-poll counting only take place when premises can be secured.

The potential risk is that some centres can do that, some electorates can do that but some cannot. So it creates two tiers. In your evidence before you said that this happened basically anyway when some electorates determine not

to count pre-poll voting and some only count first preferences. That is not the sort of thing that should be of concern to us, would you argue?

Mr GREEN: The only question of security there is to ensure that someone is not phoning up afterwards. If you have not got secure bathrooms and toilets someone can report that result from six o'clock. We want to ensure that there is not any leakage of figures before six o'clock. I was interested to be in Britain for the election there and they count their postal votes two or three days before the election. They open them all and check them so they can count them on the night. The political parties in Britain basically knew the result two days before the election but no-one was allowed to talk about it. I was astonished to discover that but that is not allowed here. If we are going down this path it has got to remain secure, I agree with you. There is that question: Does this have an impact?

The Hon. BEN FRANKLIN: Particularly in regional seats where they may not have the secure facilities.

Mr GREEN: That is right. That is something that will have to be discussed. It does put an extra onus on the Commission to ensure the type of facility it is securing. I know there was one Victorian pre-poll centre, it was in a big shed out near Tullamarine airport, and they had to put partitions up between where the toilets were and the counting was, to make sure that nobody was passing out messages. I suspect the leaking of this information in the end is not to try to influence votes. I know this very well: Parties report the preference counts from the count up through the party hierarchy so the party hierarchy knows what the overall election result is so that it can determine what message it puts out later in the evening. They do not want to know those results to try to get a message out to voters. As I always point out, in Australia we have never seen results from polling places tweeted. The parties do not allow their staff to go reporting results for anybody else to find them out. There is a fair degree of secrecy going on with this already at this stage. The question is: Can we maintain that secrecy when we are counting before 6.00 p.m.?

The Hon. BEN FRANKLIN: I am very sympathetic to the view but the only other point that I would make is in your comment about "Is availability of scrutineering an unsolvable issue?" and your final paragraph where you say it should not to be too onerous a burden simply because they will be reporting numbers rather than necessarily analysing them. I am concerned that may not be the case. I think that political parties are finding it— I suspect across the board—more difficult to staff polling booths and to take resources out and to put them into scrutineering, even if it is only just watching votes come in from two o'clock. I think that may be an issue. It may be difficult to get parties' scrutineers to be able to do that. Do you have any further comments on that?

Mr GREEN: I think that is a point for discussion but, as I always say, the scrutineering effort by political parties is usually the day after once they know the seats which are close. The best scrutineers will be there the next day. The MPs are all over our election panel. I remember George Brandis was the Attorney-General and the next day after the election he was in the scrutineering office, which was rather intimidating for the poor returning officer. It depends what you want to do with scrutineers. It may be in a close contest site. In Ballina there were doubts and in Lismore there were doubts about the order candidates were going to finish and therefore parties wanted to have a bigger look at the ballot papers and they were scrutineering. It may be in a case like that that parties will object to counting before 6.00 p.m. I think there may be some possibility to allow that if someone does not want to do the counting before 6.00 p.m. but I think it is a matter for discussion.

The CHAIR: Moving into the twenty-first century, how do you think that we should be dealing with this? I have got a thing about moving elections forward and not having pencils and paper being involved. Do you think pre-poll should be an iVote situation and it is recorded and then all they have to do at seven o'clock is press the button and the pre-poll will be counted?

Mr GREEN: There is always a difference between an iVote solution, which is about internet voting, as a replacement for postal voting and therefore requires identity and a vote and the ability to separate them when you come to count. If you move to electronic pre-poll voting, and I think it is achievable, it is a different thing. You are not having the identity of the person when they vote. As they do in the ACT, they are given a barcode to go over and start the voting process. We have had this for a number of elections in the ACT, that they release the first preference counts shortly after 6.00 p.m. and we get them. It is achievable to do that for State elections but you would think that you would start with the polling places where you would have the most effect from.

You would do it from Sydney Town Hall which takes 93 districts. There is a significant amount of paperwork in terms of running something like Sydney Town Hall. If you did that electronically there are ways you can advance the count. Certainly we are not going to have electronic, on-the-day voting in the short term; it is just not going to happen. But with the sheer volume of pre-poll voting, electronic voting is one solution to that. The issue is entirely the technical aspect of electorate voting or whether people are comfortable with it. But my concern here is just simply the reporting process: If we stay with paper ballots, is there a way that we can avoid

either not getting those results counted on the night or getting them so late that we are hanging around waiting for final figures?

The Hon. PETER PRIMROSE: You would be aware that this Committee has heard over a number of years concerns about the security of iVoting. Do you have any comments about the system that, as has been requested, we consider recommending that it be abolished, whether you are comfortable with the way it is at the moment or whether you do not have a view?

Mr GREEN: In the paper system we have at the moment postal voting is the least secure form of voting. It is the one where you do not have attendance, someone does not attend, we send the ballot paper out, it is sent back. It is subject to all the vagaries of the postal system. You do not know if you send four ballot papers to one family whether one member of that family fills them all in. That is the same sort of thing that can occur with iVote: How do you know who is filling in all the votes on the night? If we abolish iVoting, then people overseas will not vote, they cannot vote; people interstate cannot vote because postal voting will diminish. If we are still postal voting in 10 years' time, what do you do? There are arguments about the security. I will let the experts argue about the security of iVote. I think there is a place for internet voting but it should be limited.

It is currently taking I think 6 per cent at this election. If that got to 10 per cent or 15 per cent, I would be saying, "Hold on, what is going on here?" There are not 10 or 15 per cent of people overseas or busy on election day; there are people using it just because they want to use it. I would say, I think, continue with the experiment, continue to question the technology, but it should be something which is limited in its use. I am still a believer in attendance voting. The overwhelming majority of people should turn up somewhere and vote. It is not Big Brother; you should not just be able to do it on your iPhone because you like to. People say that more people voted in Big Brother in Britain in 2005 than voted at the general election. Well, so what? Voting at the general election was more important than Big Brother and that is why I think attendance voting should be maintained.

The Hon. COURTNEY HOUSSOS: Thank you for your time, Mr Green, and for your very informative submission here and perhaps informal submissions that you make elsewhere that I am sure a number of the members of the Committee take advantage of. I wanted to ask you a couple of different questions. First of all I wanted to ask you, just to follow on from what the Chair was saying, about electronic voting and the move towards it. There are obviously concerns about what happens when the technology fails, as happened during the most recent State election. I think it was Wednesday 13 March that the pre-poll centres all went down and we discovered that they did not actually have paper backup. So there are dangers obviously with embracing technology.

Mr GREEN: That was not ballot papers, that was the roll.

The Hon. COURTNEY HOUSSOS: So even these initial moves to embrace more technology within the system have shown that they have got dangers for the integrity of our system.

Mr GREEN: It is not just elections. I would point out that during the bushfires the sheer number of businesses on the South Coast that could not conduct business because the internet was down and they could not use EFTPOS, for instance. So we are all becoming sort of slightly useless in manual procedures to back up. I agree with your point.

The Hon. COURTNEY HOUSSOS: Yes, and our point is that our electoral system is incredibly secure when it is someone, as you say, who is attending a polling place and actually placing a vote, rather than necessarily doing it remotely or even coming into a centre and voting, which can be problematic. We have talked a lot about the way to count early votes. There is a question about whether this increase in early voting is something that we should be addressing. One submission we received said that we should limit early voting to the legal requirements. Others have suggested shortening the period. There are some different ideas out there. How do we rank internationally in terms of early voting? Are we embracing it at a larger level than other areas? How do we compare?

Mr GREEN: These are Federal figures. I went back through this yesterday trying to find out the level of pre-poll voting. Back in 1993 there was 3.3 per cent pre-polls. In those days pre-polls were not ordinary votes. They were basically postal votes in person. You turn up at a pre-poll centre and you went through all the paperwork for a postal vote. That number had increased to 8.3 per cent by 2007. Of course the numbers were going up with the declaration envelope. The declaration envelope slowed down the process and there was agreement in 2007 federally to get rid of the declaration envelope to make them an ordinary vote. The minute they did that the numbers started to go up and at the last Federal election there were 28.2 per cent ordinary in-person pre-polls and another 4 per cent were pre-poll declarations—in other words, outside of the district.

The Commonwealth is conducting this over three weeks. I think New South Wales does it in a little under two. I think it is even 1½; it is a very short period. The Commonwealth is talking about shortening it to two weeks.

They will cut the numbers but they will cut the numbers to the level we have seen in New South Wales. Some of the research which is done on this, the Victorian Electoral Commission did a research report on why people pre-poll vote and basically once someone has pre-poll voted they do it again. Anyone who has pre-poll voted is more likely to do it again because they found it very easy and convenient. One of the reasons that people cite is that it is very easy.

The CHAIR: Sorry, Mr Green, is that do it again at the same election?

Mr GREEN: No, at the next election. To clarify, at the next election they will pre-poll again. So that is what occurs. Some of the comments cited by people is, one, it is more convenient than trying to find some way in a busy day to do it and, secondly, they cite the lack of people trying to stick things in their hand outside polling places. I am doing the Northern Territory election later this year and the sheer number of people that were standing outside of polling places and sticking things in people's hands—in Darwin it is called running the gauntlet to get into a polling place. They have actually restricted the amount of people outside of polling places and where they can stand to make it easier and, you know, not as confronting to vote on the day. So there are a number of reasons why people have switched to using pre-poll votes. If by limiting pre-poll voting you just actually diminish the turnout, I am not sure that is the response you will want either. So there is a fine balance between trying to get people to listen to the whole of the campaign before they vote and trying to deal with the needs of people who just want to do their duty.

The Hon. COURTNEY HOUSSOS: I also just wanted to ask you some related questions on the advice that you provided to the NSW Electoral Commission when you were commissioned to do some work for it. Did you provide advice on its central voting set-up?

Mr GREEN: No.

The Hon. COURTNEY HOUSSOS: We did see over the past two elections a different way of counting. They call them preferential votes and single preference votes. That is a new type of counting. Did you provide any advice on that?

Mr GREEN: That is before they do the data entry in the lower House, you are talking about?

The Hon. COURTNEY HOUSSOS: That is right.

Mr GREEN: No, I did not. That is their procedures. But they have done that because if the ballot paper has only one ballot and clearly has only one vote it is substantially easier for them to do that than to have to data enter all of these ones. So I know they have been doing that. I was not aware of that and had no involvement in that decision. It is a sensible way. Before there was ticket voting in the Legislative Council they used to separate all ballot papers that went one to 15 down the column and called them block votes as a way of simplifying the count. Some of these procedures are just simply done to simplify the process.

The Hon. COURTNEY HOUSSOS: Yes, but it does also lengthen the scrutiny process because we saw the emergence of two different types of votes, as they were called by the Electoral Commission—single preference and multi-preference. So what you saw in seats that were close was that the scrutiny was continuing later on. You actually were not getting a clear idea of where the votes were going. So I was just interested to see whether they sought your advice on that at all?

Mr GREEN: I do not have much to do with the actual counting. There were some peculiarities in the way that New South Wales does it because they do all the count on first preferences and we get them reported in the indicative preference counts and then they move to data entry. After the North Shore by-election I advised the Commission that the tool they have which allows you to calculate preferences, which allows you to do the preference count, in North Shore there was a lack of clarity of the final two candidates and I suggested to them that in that situation when they move straight to data entry they start to publish them on a progressive basis so that we can get a handle on the preferences. I cannot remember from the State election when the Commission moved to doing that but they have had to adopt procedures with that manual counting so they can move directly onto the electronic data entry. I know this is an issue which is coming up in the local government elections because how can you scrutineer when they are doing so much preparation to start data entry?

The Hon. COURTNEY HOUSSOS: Yes and obviously scrutiny is a key part of the system but we also want a quick election result. So there are two parts to it that we need to balance obviously.

Mr GREEN: I will just ask you, is this separation occurring in the polling place on the night?

The Hon. COURTNEY HOUSSOS: Yes.

Mr GREEN: I was not aware of that.

The Hon. COURTNEY HOUSSOS: And it also means that for the first time both as a political party and also as a scrutineer we actually saw a classification of votes in a new way that had not been dealt with before.

Mr GREEN: I can understand why they do it. It is an attempt to try and speed up the process of the data entry. If you can put all the ones here and the ones with preferences separately, yes. I suspect maybe that was not made clear enough in the instructions. But again, I had no involvement in that.

The Hon. COURTNEY HOUSSOS: I am going down a rabbit hole which is a passion of mine and I am sure we will come back to it in the Committee. I wanted to move on and just ask you again about the central voting procedures. At the centralised voting centre—

Mr GREEN: There were two. One for the House and one for the Council.

The Hon. COURTNEY HOUSSOS: Yes, for the lower House and for the Legislative Council. So for the lower House they were returning all of the pre-polls and just sorting them, rather than sorting them by seat. In your opinion, would that delay the counting of postal votes rather than dealing with the—

Mr GREEN: Let me clarify this. Pre-polls?

The Hon. COURTNEY HOUSSOS: Sorry, this is for postal votes. I have moved on to postal votes now.

Mr GREEN: Postal votes came in—

The Hon. COURTNEY HOUSSOS: Carriageworks is the one that I am talking about.

Mr GREEN: Yes. What did they do with them?

The Hon. COURTNEY HOUSSOS: They actually centralised it, so all of them are dealt with together, but it means that if we have a close seat, so if we are watching one particular electorate, that gets mixed in with all of those electorates that clearly have results that have already been decided. You did not provide any advice around that?

Mr GREEN: No, I did not. But are you concerned about the way they separated the ballot papers or the fact that in some close counts part of the counting is being conducted in a returning office and in the central centre you are dealing with the pre-polls and the absence there?

The Hon. COURTNEY HOUSSOS: No, my concern is that when you are dealing with postal votes there may be one electorate that you are particularly concerned about and up to 92 others that are pretty clear-cut already and all of the postal votes are being dealt with, so it can be quite slow and onerous.

Mr GREEN: I am not aware. The one thing I did have to do with the NSW Electoral Commission is I advised them—they were opening envelopes earlier in the week and they were going to count whatever they had by Friday on the Saturday. I gave them advice to count certain districts first, so for all the close districts they started the postals in those districts before so they had done some sort of sorting at that stage already. Actually I well remember because the first figure came in from Mulgoa and it was about 200 postal votes. I was very surprised; I did not expect to see it sort of 20 past six. But it went well. For us, the postal votes were very small; it was only 2.9 per cent overall, I think.

Postal votes administratively, I cannot comment on what procedures were adopted, but I would suggest that if there is a better way to do it I think these things are best negotiated with the Commission. They are usually, I have found, quite amenable. It is much better than federally where currently everything has to go back to the returning officer. So if you have got a close count in Herbert and there are ballot papers from all around the world trying to get to Townsville, the centralisation of that has split the count into two parts, but I do think it is a procedure which makes it easier to follow, as long as everybody knows that is what is happening.

The Hon. COURTNEY HOUSSOS: I do not oppose the centralisation of the procedure but it sounds as though they followed your advice on the night but did not follow it for the rest of the week. So I think maybe we need to get them to following that along. I just wanted to ask one last question. At the Legislative Assembly data entry centre out at Rouse Hill they enter every single ballot paper. So even if you ticked or crossed or have written a 14, a 13 and a 12 and that is it, they will data enter every single mark on that.

Mr GREEN: Yes.

The Hon. COURTNEY HOUSSOS: Is that useful for you in your analysis?

Mr GREEN: I have not actually run that data through. We all get the ballot paper. I want to go through that data. For instance, I was very surprised the Labor Party issued one only how to vote card in some electorates like Bankstown and Cabramatta, given a Federal election was held seven weeks later. I am interested to go through

that data and spot every vote which has been admitted to the count with a tick or a cross because that will give us an idea of how many people are using ticks and crosses and who they are voting for. That data, despite 14 and 15 per cent informal votes in some Federal electorates in Sydney, the AEC does not do any research on who they voted for. So that data is useful for me and I will make use of it.

I did a publication, which I ended up not publishing because I ran out of time, where I used the data in 2015 to analyse all the preference flows in New South Wales. I hope to do the same for the Parliamentary Library in this term of Parliament, to take that data and to publish it—it is there, it is very useful information on how many people follow a how to vote card, for instance; so it can be used. The ticks and the crosses give some idea. I do understand if the vote is just a single one, the reason they identify them separately is they enter all the ones as a bulk total, and I think that is something that scrutineers must watch that that is done correctly, because if you put in 300 instead of 200 you get an error.

In fact, I contacted the Electoral Commission because I spotted a huge discrepancy in Tumbarumba in the electorate of Albury—there was a 40 per cent swing against the Liberal Party and the numbers were the exact opposite of the previous election. I rang them up and suggested was there a problem here? They got back to me; the data was correct, there had been a 40 per cent swing and there was a campaign against the amalgamation of the councils and that caused that discrepancy. So you can actually go through that and check that.

The Hon. COURTNEY HOUSSOS: Yes, and helpfully that is in the Federal seat of Eden-Monaro, so we are much more hopeful of that.

The CHAIR: We have to let other members ask questions.

Ms FELICITY WILSON: I am hoping to ask some questions about the Legislative Council counting. The Electoral Commission has talked about not conducting the count on the night. I know you have had some contributions to make about sampling as an option in the past. Could you talk us through sampling or not conducting the count on the night or the way in which we approach the Legislative Council count?

Mr GREEN: My comment on the sampling is usually about the distribution of preferences and how the New South Wales constitution specifies you must do sampling to do distribution of preferences. The Commission chose to only count seven totals of all the columns this time and I gave them some advice on which seven parties to choose, and that was the count that was conducted. The Keelty review after the 2013 problems in WA, the Finance Department federally, its recommendation was not to count Senate ballot papers on the night. I spotted that in the Senate amendment legislation in 2016 and pointed out this was a problem and they removed it.

The problem there federally was they were just going to count how many ballot papers there were, then it got a returning officer to just count how many ballot papers there were and then they would go to the central scrutiny centre. If you do not count Legislative Council preferences of ballot papers on the night, when will you count them, is the difficulty. But then they all decided that they are big, they are unwieldy, the staff have been there all day. There is a real, fine balance in how to do this and the Commission tried to compromise on that by only counting seven totals at the general election. I know the Commission has recommended not to count them on the night. I would be nervous about that because if they are not counted on the night when will they be counted?

The AEC has amended its rules for the 2019 election; they are counted on the night. They come to the returning officer's office; they are not recounted, they go straight to the central scrutiny. But then you have got that initial tally on the night in the system so there are not any missing any figures. With iVote it would be possible to release some of those figures earlier, but it does mean if you do not count on the night there is nothing on the Legislative Council on the night and I can understand why people are concerned about that. But then there is also the difficulty of doing this count. Maybe if you start counting pre-polls you can do the pre-poll Legislative Council votes on the night so there is something to talk about.

I think this is a staffing issue and a cost issue you are discussing with the Electoral Commission. It would be sad to lose figures for the Legislative Council on the night because it is something for us to talk about. If you do not know the result on the night it removes people's confidence in the system. I know the Keep Sydney Open people were extremely upset; they were planning all sorts of parties to follow the result and discovered there were no totals. So I can understand why people got very upset about that. But that would be a general complaint amongst nearly all small parties if there were no Legislative Council results on the night. As long as the ballot papers are secured and there is some form of back totals, there has to be some counting on the night, you cannot just put them all in a box and send them back. So there needs to be some counting at least how many ballot papers there are, which was the original Senate proposal and I suspect is what the electoral office here is suggesting. But it would be sad to lose those totals on the night, but that is for the Committee to decide. I think it would be best if they were still done.

Ms FELICITY WILSON: We also had a submission from the National Party, which looked at changing the allocation of electorates in regional areas to move away, essentially, from the one member one vote principle. Do you have a perspective on that?

Mr GREEN: That would require a referendum because it is in the constitution and requires a referendum to change. Western Australia and Queensland have a provision for a large district electorate. So that if any electorate is over 100,000 square kilometres it gets sort of phantom enrolments, so it can have a lower enrolment. It is a formula that applies given to the size of the electorate. I think in New South Wales if you applied it it would be, at most, only two electorates and possibly only one because we are not as big. But there is a problem; there is a redistribution coming in this term of Parliament. It is highly likely that Barwon and Murray will cover more than 50 per cent of the State after the re-joining of ballots.

The Hon. BEN FRANKLIN: They already cover 60 per cent together.

Mr GREEN: Do they? It may be 70. So that is a problem. But the difficulty is, one, you need a referendum, but, two, it would have to be a formula and in the end it is only going to apply to a very small number of electorates.

Ms FELICITY WILSON: Do you know off the top of your head what percentage each of those jurisdictions applies outside of the average number for electors? I think in New South Wales we have moved to 10 per cent from the 5 per cent. So we have actually got a bit of extra leeway now.

Mr GREEN: New South Wales had a 10 per cent and a predicted enrolment quota of 3 per cent. Before the last redistribution the predicted quota was returned back to 10 per cent and that has allowed a lot more leeway in trawling the boundaries for the future. The Commonwealth uses 10 per cent for current enrolment and I think it is 5 per cent for projected enrolment, but they have got larger electorates; they have got a little more tolerance. Queensland and Western Australia do not use projected enrolments; the figures are available but there is no quota for projected enrolment. For current enrolment it is 10 per cent as well—10 per cent is the standard figure around the country. Western Australia allows, I think, 20 per cent under for their remote electorates, but in Western Australia those remote electorates are truly huge.

The Hon. PETER PRIMROSE: I have only got three minutes, I think so, I will just ask one question. The Committee has heard in a couple of submissions about what I call the hoary old chestnut about the need for photo IDs for voting. I was just wondering again if I could ask you to please comment on that.

Mr GREEN: I do not agree with photo ID because there are people who do not have photo ID and we know the groups that do not have photo ID. They will be older women, they will be migrant groups—particularly females from certain migrant groups—people in remote districts. So, when Queensland brought in voter ID it was not photo ID. No, it may be you can do these laws and catch—92 per cent of people will probably be absolutely fine. They can walk in and wave their document and they are fine. The question is if you want to bring your photo ID what do you do with people who do not have photo ID. The Queensland provisions, basically, gave everyone a declaration vote and then they were counted afterwards. There were never any procedures about what was rejected. I like to say on this you can reverse the question and say: Does an electoral authority have any right to ask someone whether they are the person they say they are? And currently you say they have no right to ask. That does not make any sense. I would like to—look, if you bring in photo ID, it does not make sense unless you are recording that this person has done ID. That means extra record keeping at the arrival.

I would hate to see people turned away without being given a vote. The hoary chestnut is that someone is turning up and voting for their daughter and stuff: "My daughter is overseas. I don't want to get her to get a fine." It is said that if parties send out postal vote applications and it comes back "return to sender", somebody is sent along to vote on their behalf. I think the parties that complain about this are the ones that, by conspiracy theories, are the ones who are committing this crime. So I am not convinced we need photo ID. I think there is very little evidence of photo ID. We have got some evidence of people voting more than once but most of those are clerical error and I suspect—I think it is problem which is far larger in suspicion than in reality.

The CHAIR: Thank you, Mr Green. Thank you for appearing before the Committee today. The Committee may wish to send you some additional questions in writing, the replies to which will form part of your evidence and would be made public. Will you be happy to provide written replies to any further questions?

Mr GREEN: Yes, I will.

The CHAIR: Thank you very much for appearing. It has been quite enlightening.

(The witness withdrew.)

(Short adjournment)

RAJEEV GORE, academic, Australian National University, affirmed and examined

VANESSA TEAGUE, in a private capacity, affirmed and examined

ALEXANDER ESSEX, in a private capacity, affirmed and examined

The CHAIR: Thank you for appearing before the Joint Standing Committee on Electoral Matters today to give evidence. Can you please confirm that you have been issued with the information about the standing orders in relation to the examination of witnesses?

Dr TEAGUE: Yes, we have.

The CHAIR: Do you have any questions about that information? The Committee has received a joint submission from Professor Gore and Associate Professor Teague. Would you like the submission to form part of your formal evidence?

Dr TEAGUE: Yes.

Professor GORE: Yes.

The CHAIR: Would any of you like to make a short opening statement before the commencement of the questions?

Dr TEAGUE: Yes. We have each prepared just about one minute as a rough summary.

Professor GORE: I am an expert in the formal verification of software, which rests on the fundamental foundations of mathematical proof. The technology is mature and is often mandated for mission-critical software, such as in driverless trains. But this technology is not being used by the software vendors of election software due to the costs involved or it is being used badly—for example, the problems pointed out by Dr Teague, which indicate that the software built by Scytl will produce perfectly legitimate proofs for bogus results. The situation will only change if election commissioners insist that the software they require is mission-critical. Current election commissioners tend to trust the software vendors because they either do not have the expertise required to assess mission-critical systems or they are unaware of the dangers of e-voting. This has to change because, sooner or later, a losing candidate will challenge the results of an election due to some sort of software bug. Our legal framework is not geared to handle such a case.

Dr TEAGUE: I would just like to emphasise what Professor Gore said and focus your minds on the question of the possibility that the iVote system is vulnerable to undetectable fraud. You have been given this story about verifiability. You have been told that it is "verifiable" in a very abstract way but I encourage you to think for yourselves about whether you actually saw any evidence, or whether your scrutineers saw any meaningful evidence, that the results were what they should be. I could give you a two-hour lecture about how the maths is broken, but I actually in some ways do not think that is the point. I think the point is you can see that your scrutineers really are not seeing actual evidence that the votes that came in matched the voters' intentions, that they were not substituted in transit or in the internal process and that they were properly entered into the count as accurate reflections of the intentions of eligible voters.

Dr ESSEX: First I want to acknowledge what an honour it is to be invited to speak to you today, especially as a guest in your country. I am an academic in Canada but I am visiting the University of Melbourne on my sabbatical. Like Dr Teague, I have expertise in cybersecurity, especially of electronic and online voting. What I am hoping I can provide the Committee today is some international perspective. The province of Ontario, for example, is a leading user of online voting, similar to the State of New South Wales. There are a number of points of comparison there. I have studied the systems deployed in Ontario and in New South Wales and iVote in Western Australia—Dr Teague and I published on that. I think there are some parallels with our experience in Canada that may be of some interest. For example, we also experienced in Ontario in the 2018 Ontarian municipal election a number of municipalities had outages in the online voting system on the night of the election. Different vendor, different set of circumstances, but again there are some parallels there in terms of how it was handled and what lessons we might learn going forward.

Ms FELICITY WILSON: Perhaps I can ask if you can expand on some of the lessons you said you have from that Ontarian example because that might inform our discussion.

Dr ESSEX: The province of Ontario currently does not use online voting but the Ontarian Municipal Elections Act allows municipalities to conduct elections using a form of their choosing and so many municipalities have opted to use online voting. In 2018 we had 2.7 million eligible voters in cities offering online voting in which one and a half million were in municipalities where only online voting was offered, so there was no paper ballot option. On the night of the election one of the vendors—there were a number of vendors that were active in Ontario in 2018, Scytl being one of them, working in partnership with the Canadian company called Intelivote.

Scytl separately had two cities that it was working with, accounting for about half of the Ontario municipalities but a different vendor, Dominion Voting Systems, experienced on the night of the election a slowdown in its infrastructure that prevented people from logging in to cast their ballot online. This was about 5.30 p.m. that everyone suddenly realised that the website just was not loading.

I was doing a study of the election, so we observed it happening. The login page just would not load; the little spinner would spin. This affected 49 municipalities in Ontario accounting for about 1.3 million eligible voters. Some of them would have voted already so not all of them would be affected by this, but there was obviously a lot of concern about what happened and especially why it happened. This was the really important point: Why did it happen. It turned out that the vendor the night of the slowdown came out and said that the cloud infrastructure provider had set an improper bandwidth restriction, about one-tenth of what had been agreed upon, which was what was responsible. So they basically, in cybersecurity terms, denial of service themselves, which was obviously very unfortunate. One of my colleagues, a political scientist in Ontario, Dr Nicole Goodman, and I have co-authored a study. Dr Goodman actually happened to be collecting voter preference and opinion data during the night of the election. We were able to segment two populations: voter impressions before the slowdown happened and then after.

As you can imagine, people voting after had a much darker view of the experience across multiple dimensions–so trust or willingness to vote online next time and so forth. We are going to be publishing a study about that. In particular, the thing I want to draw your attention to as it might apply to your context is how the messaging eventually came out about why this happened. In this case, why was there a bandwidth restriction placed? We talked to the vendor and the vendor would not tell us even though we eventually found it buried in the staff report. It turns out it was a simple miscommunication. As members of the public and especially as candidates in the election, candidates especially who lose in the election unexpectedly—and I have had a chance to speak to many of those people in Ontario—it is important to them to understand why they lost. When there are circumstances surrounding that that are questionable, that is when we start to see some of the legal challenges that have been referred to. There have started to be some. There is at least one lawsuit in Ontario right now over the use of online voting and the trust and the transparency issues surrounding it.

The Hon. BEN FRANKLIN: The first issue I would like to go to is the fundamental problem in my mind. I am a Nationals party member. Clearly I am concerned about disenfranchisement of rural and regional people. The tyranny of distance has always been a challenge for us, particularly now at a time where postal services are becoming rarer. Often there are parts of New South Wales which will only get one postal delivery a week. When there is only two weeks now before an election, it means that it can become almost impossible for someone to receive a postal vote. Maybe they cannot travel the 200 kilometres to get to a pre-poll voting centre, in which case some kind of internet voting is their only option in order to not be disenfranchised. I believe that you are opposed to internet voting full stop. How do you reconcile that potential challenge?

Dr TEAGUE: I would say two things about that. First of all, I am very unconvinced that internet voting is actually enfranchising anybody. Remember that none of those voters are actually getting any evidence that the pretty user interface that they use to cast something that looks like a vote is actually reflected in anything that actually contributes to choosing a Member of Parliament.

The Hon. BEN FRANKLIN: Yes, but we also do not have proof that someone landed on the moon either because none of us were there. You have got to suspend actual personal physical proof sometimes and trust in what is going on. I understand what you are saying but you also do not have proof, for example, when you put a ballot paper in the ballot box in a pre-poll setting, when you leave and then you get back three days later to count the votes, it has been sitting there overnight, that somebody has not gone in to change the votes. This can happen is my point. I do not think it is an acceptable answer, with the greatest amount of respect, Dr Teague, to say that you do not know that it is definitely going to be a vote.

Dr TEAGUE: It is a matter of the ease with which a small number of people could manipulate a large number of votes without detection. I agree that manipulation of the paper system is possible. It is a question of how large a conspiracy you would need, how easy it would be to do it away from the eyes of scrutineers versus the possibility that one janitor in the Electoral Commission could potentially fiddle all of the iVote votes. I agree that neither system is perfect but in terms of the magnitude and ease of a large-scale manipulation, I think it is very much against large-scale use of iVote.

The Hon. BEN FRANKLIN: But it is not going to be done by a janitor, right?

Dr TEAGUE: Why not?

The Hon. BEN FRANKLIN: When, for example, the source code was released to you and you had a look at it, you came back and my understanding is that your concern was that there could be an inappropriate manipulation. But that would not have been an external issue; it would have been an internal one, right?

Dr TEAGUE: Yes.

The Hon. BEN FRANKLIN: Surely any step of the electoral process can be manipulated internally by the Electoral Commission.

Dr TEAGUE: I do not necessarily think that is true. If you think about the two-party preferred count for the Legislative Assembly in a typical polling place, for example, the number of people that you would have to involve in manipulating the two-party preferred count in a typical polling place under observation by scrutineers is substantial. If you wanted to make a difference, you would have to do that across a variety of different polling places. In the case of iVote it is not about the trustworthiness of the people inside the Commission—I accept that they are nice people—it is about the fact that they do not really have the technical ability to notice whether something untoward has happened at one of the unscrutinisable steps of this electronic process.

The Hon. BEN FRANKLIN: Let's flip it. Do you have proof that the process has been compromised?

Dr TEAGUE: No, there is no proof either way.

The Hon. PETER PRIMROSE: Can I just quote to you a recommendation from the Commonwealth Joint Standing Committee on Electoral Matters and then seek your comment. It recommended the following three things:

> … a non-partisan independent expert scrutineer be appointed to each Central Senate Scrutiny Centre in each State and territory and be responsible for:
>
> • auditing the computer systems and processes used to capture and count votes;
>
> • undertaking randomised checks between captured data and physical ballot papers throughout the count at a level that provides surety as to the accuracy of the system; and
>
> • providing reports to candidate scrutineers about their findings on a regular basis during the count.

Would you comment on that?

Dr TEAGUE: If I remember rightly, those recommendations were about the automated Senate scanning process. They are referring to somebody looking at the electronic output of the Senate preferences and conducting an audit back to the paper records of how people voted. I think that doing that audit is a very good idea. I do not necessarily entirely agree that that should be done by somebody appointed by the Commission. I would suggest that it is entirely appropriate for that to be done with the active participation of candidate-appointed scrutineers because that aligns the incentives better with the people who have an incentive to keep an eye on the process. It is worth pointing out, however, that you do not really have that option with iVote because you do not have paper evidence of how people intended to vote. The concern that the vote might have been manipulated through the electronic process is not addressed by conducting an audit of the paper records because you have not got any paper records.

The Hon. PETER PRIMROSE: Can I just follow that up then. One of the other recommendations that has been made by the NSW Electoral Commission is scanning Legislative Council ballot papers. Would you recommend when scanning is used that this type of oversight be implemented?

Dr TEAGUE: I would certainly support an auditing process where you take the digitised preferences, which are already published openly in New South Wales, take those, conduct a random sample and for each randomly sampled electronic ballot go back to the paper ballot and check that the digitised preferences are accurately recorded. This kind of process is actually the norm in some enlightened places in the United States. I recommended it very strongly in the case of the Senate count. My research group participated in a pilot audit in the city of San Francisco to do exactly this kind of thing. This has the great property that you are then not trusting the electronic system to have not been manipulated, right? You can in the presence of scrutineers, potentially on completely openly available software, conduct a rigorous and publicly observable double-check of the electronic process.

Mr PAUL SCULLY: You said earlier that your preference would be to go to no system. But assuming that we have to have a system and given the shortcomings all three of you have identified to a certain degree, what steps, mechanisms, procedures or processes might you do in order to make sure that it is as rigorous and secure as possible?

Dr TEAGUE: First of all I think the protocol itself is very far short of the best thing that there could be. It has really been kind of tacked together from—I do not even know what it has been tacked together from. Things have been added to it over the years without there being a coherent design.

The Hon. COURTNEY HOUSSOS: Can you just clarify what you mean by protocol?

Dr TEAGUE: If you look at what actually happens to the data through the iVote process, first of all somebody votes using their web browser, then if they do not trust Scytl to accurately record their vote their only option for double-checking that is to download another closed-source app from Scytl and use the Scytl app to test whether the Scytl voting system accurately recorded their vote or not, which proves that either Scytl is honest in both cases or Scytl is lying to them in both cases. It does not really provide any kind of meaningful opportunity to check.

The Hon. COURTNEY HOUSSOS: I am so sorry to interrupt. Last time you came before us for the previous 2015 inquiry you gave us some very low verification numbers. Are you aware of the verification numbers or the people who tried to verify?

Dr TEAGUE: That is an excellent question. I think that is a question for the NSW Electoral Commission. I am not aware of any numbers having been released this time. All I know is that I had a look at the Google Play ratings for the verification app and there were a lot of comments about people complaining that it did not work, but that is all I know. I do not know whether public information has been released from the NSW Electoral Commission. I am not even sure the NSW Electoral Commission would know if someone tries to use the app and it does not work. I am not even sure whether that information is actually meaningfully returned to the Commission in a way that they can count.

The Hon. COURTNEY HOUSSOS: That is useful, thanks.

Mr PAUL SCULLY: We were just exploring the protocol stuff.

The Hon. COURTNEY HOUSSOS: Sorry, I distracted you.

Mr PAUL SCULLY: No, that is fine. That helps. Yes, so the protocol has been stitched together over a period of time from a range of places without a design.

Dr TEAGUE: Yes. I think the other answer to your question is that openness should be a key from the very beginning. Unfortunately from the early days of iVote New South Wales has had a law making it illegal to share the source code without the permission of the NSW Electoral Commissioner. Now, we are just lucky that Switzerland had exactly the opposite law. They had a law mandating the sharing of the source code for the purposes of open analysis in the interests of electoral transparency. That is the only way that you found out about the serious cryptographic errors in iVote because we were looking at the Swiss source code that had been released as mandated under Swiss law and we found a bunch of serious vulnerabilities that also turned out to be present in iVote. I really strongly recommend at an absolute minimum shifting the onus to openness and transparency because then at least you have a better chance of figuring out what your security properties are so you can make a more informed decision.

Mr PAUL SCULLY: Is the Swiss system a better system? I mean, apart from the obvious difference between the availability of the source, have they taken other steps to reduce the prospect of someone interfering with the vote or the data?

Dr TEAGUE: The Swiss system is a different system because Swiss elections are different from New South Wales elections. In particular, they use what is called a code voting system because they are only voting for one person at a time, they are not expressing preferences. It does have stronger security properties but it is not obvious that they could be transferred to Australian preferential votes.

Dr ESSEX: I wanted to add just again from an international perspective that the vulnerabilities that Dr Teague and her colleagues found—I reviewed their copy of it; I was not a direct author of it—really fall into something new. This is really something that we have not really seen before globally. It is not just the standard, run-of-the-mill software vulnerabilities that we hear about in the news all of the time. This is different insofar as when we talk about proof, what we had in the situation in Switzerland and to a certain degree in New South Wales, although I will let Dr Teague comment on that, we saw the ability—these vulnerabilities allowed, if there were to have been some kind of malfeasance, that they would be able to alter the election result.

Now, so far this is not unlike any other software vulnerability. The difference comes in that they would be able to issue a cryptographic proof that nothing was wrong. So from my perspective as a cybersecurity researcher specialising in elections, that is about the worst possible thing that you could imagine: an election that could be modified and then proven otherwise. What their team discovered really was, I would say, in my view,

the biggest election news story in the world last year. New South Wales obviously has a somewhat different context but there is still obviously some overlap there. But when we talk about standards of proof, that really is unlike witnessing a hand count. So what we are doing is coming from a hand count and then we are moving to this. It is not about, like, did the Apollo missions happen? It is about, how does this fit in relative to what we had?

Mr PAUL SCULLY: And just one last question. Professor Gore, you said earlier that the software and the process is not defined as mission critical but if it was that could help improve things. Could you elaborate on that?

Professor GORE: Basically if you take software seriously there are a whole bunch of standards that have been defined, for example mission-critical software. You do not get to provide software to the NASA unless you can prove that you have met all of these International Organisation for Standardisation [ISO] standards. Because of the rigorous checking, the software is expensive so the election commission is caught between, "I have got a $200,000 budget to run the election but how can I"—I was actually involved with the Australian Capital Territory election system in the late 1990s. So in 1996 and 2001 the ACT election moved to a polling place-based vote casting system. I was involved in the design of that.

Basically at a certain point we were the successful tenders and we had built into the tender a process of verifying the vote counting software because that is what we do. But at a certain point we just got told the budget does not allow it. The election commissioners really are caught in a bind. You have pressure from below: We want electronic voting. You have got lack of funding and funding even being cut because electronic voting is apparently cheaper and, well, you have implemented it. Then you have got academics saying, "Do not do it, do not do it".

Mr NATHANIEL SMITH: Just to follow on from the thing from Wollongong, obviously you have done a lot of research on electronic voting around the world. Considering New South Wales is a different system of voting—it is compulsory and preferential—what sort of systems around the world would you recommend to the NSW Electoral Commission that would best suit iVoting? Obviously coming from a regional area as well, we are seeing more and more things being done online and distances between polling booths and things like that. If you had your chance to recommend something, what would you be recommending?

Professor GORE: I would recommend do not do it. Can I read a quote which I have on my computer? It is from 2015. Just give me a second.

The Hon. BEN FRANKLIN: Can I ask a very quick factual question of the other two witnesses while the quote is being sourced? I just want to go back quickly to the source code. This Committee made a recommendation that the source code become available for iVote last time, as you would be aware, and I think that was one of the reasons it was done. When you had a look at the source code, does that mean you can now see the source code for all iVote or would we need to make another recommendation that the source code for the 2019 election be made available? Secondly, do we need to make a recommendation that the source code be permanently available? Have you just seen it once and you need now to see a new one?

Dr TEAGUE: I have access to a repository that has the version that was used in 2019, possibly with some modifications as a result of some of the issues we found. So the question is, Are they going to use that version again if they are allowed to use it again in 2023 or are they going to change it again? The short answer to your question is, yes, I think you need to make a recommendation that it be permanently available so that as they correct or change things there is a continual process of review.

The Hon. BEN FRANKLIN: I think it is very important that you have access to it. I do not in any way want to undermine the work that you do—I think it is very important—but obviously I have concerns.

Professor GORE: Here is a quote from the final report written by the US Vote Foundation in 2015:

> Elections for public office are a matter of national security. Researchers have shown that every publicly audited, commercial Internet voting system to date is fundamentally insecure. It is currently unclear whether it is possible to construct a system that fulfils the set of requirements contained in this report. Solving the remaining challenges however would have enormous impact on the world.

I have got a job for the rest of my life.

Ms FELICITY WILSON: You have spoken a lot about the issues with different software around the world. But you have also acknowledged—you spoke about NASA and mission critical software—and we all acknowledge in this place that much of the very sensitive information in our lives uses software and uses the internet. There must be ways in which you can craft the most secure system possible—not without risks but with a lower probability of risks because we make decisions every day to use computer systems that could have some risk with very sensitive information. If the decision is taken—not just here but around the world—to move towards

electronic voting and internet voting, how do we craft it in a way that makes it the most secure that it can be? How possible is it for us to do that?

Dr ESSEX: If you want to solve online voting as a security problem right now, the way that we know how to do it is quite simple and that is to eliminate the secret ballot. The reason online voting and voting in general is a hard IT problem and the reason it is not like online banking, shopping online and all the other things we do online, is that we have a ballot secrecy requirement in addition to all of the other requirements about things being correct. So when a package does not get delivered to your door you find out, you can report it and you get a new package. If your vote gets stolen, what do you get when that happens and how do you detect that it happened?

When the package does not come, you detect that easily enough. If a charge on your credit card is made, you can detect that. The bank sees the same charge that you do. Voting is not like this when you have a secret ballot. So to answer your question in a more meaningful way, the academic community internationally does not know how to solve this problem in a way that we believe would respect all of the democratic principles at the same time. The democratic principles being the secrecy of the vote, one person one vote and the standard things. We do not know how to get those properties all at the same time in a way that is publicly verifiable, that the candidates who lose the election will be satisfied to a comparable degree under a paper ballot system.

Dr TEAGUE: I agree.

The Hon. COURTNEY HOUSSOS: In your submission you say that the source code that you had to sign, it was quite difficult to obtain permission to do that. Our previous recommendation was that it should be available. How much has that been agreed to?

Dr TEAGUE: That is a really good question. Before the election it was available only under a non-disclosure agreement that specified secrecy for five years, which I refused to sign because I cannot think of anything worse than being in the situation where you know there is something fundamentally broken about an electoral process but you have promised not to say.

The Hon. BEN FRANKLIN: That undermines the definition of "open", does it not?

Dr TEAGUE: Exactly. After the election and after all the information that came out about the Swiss system, the Electoral Commission then decided to make it available under a much more reasonable non-disclosure agreement that specifies that you have to remain silent for 45 days, which was fine. I was happy to sign that particularly since there was not an election coming up within 45 days, and it is under those conditions that I have got access to the source code. I would still say that does not actually count as open. "Open" means posted on the web and easily available to anybody. But it is certainly a lot more easily available and I think that condition is reasonable enough that at least some people were able inspect it.

I should say by the way that I was very glad to hear the Electoral Commission say that someone had conducted a really thorough examination. I would love to know who that was. It was not me. I only looked very specifically at the particular issue that my team had already identified in the Swiss code just to check whether or not the issue was relevant or not to iVote because the Electoral Commission had put out a press release saying it was not relevant to iVote and I was a bit sceptical. So I looked particularly to see if it was relevant to iVote and it certainly is relevant to iVote. I believe they have now corrected it, though I have not checked the correction.

The Hon. COURTNEY HOUSSOS: What is the purpose of the 45 days?

Dr TEAGUE: I do not know.

The Hon. COURTNEY HOUSSOS: Is that common?

Dr TEAGUE: Honestly, I think it is PR, personally. I think it is just to give them a chance to write a nice press release about it so that the press release can say not only that an error was discovered, but also that they have already fixed it or they can figure out how to spin it or something. There is no rational reason for 45 days.

The Hon. COURTNEY HOUSSOS: Are you aware of this kind of timing in any other non-disclosure agreements?

Dr TEAGUE: There was a similar kind of thing in the Swiss system, although it is not entirely clear that that was in fact compliant with the Swiss regulations for openness. This is a little bit of a controversial question in Switzerland as well—whether "open" means that you are allowed to write these rules about 45-day non-disclosure periods or whether "open" means actually open on the web. There is always a tension between the vendors trying to keep stuff secret so that they can control the public relations around errors that have been found versus the democratic necessity for transparency.

Professor GORE: Can I just add one point? For example, commercial companies often pay bounties if you report bugs to them, but they demand that you stay silent for some period of time primarily because they are trying to fix the bug. But then we are talking about things which are being used every day—Facebook or Amazon or something like that. The reason why that sort of commercial norm of waiting some number of days—why it does not apply here is they are not being used. The whole idea is you are putting them—the Swiss Post system was put up six months before. There is a fundamental difference between putting something up so that anybody can look at it without fear or favour or being persecuted and a certain select group of people who can be bothered and whatever. There really is a lot of difference because it is the multiple eyes looking at the code that might find different things. Dr Teague has an expertise in a certain area, but then our colleague Thomas Haines has an expertise in some other area.

Dr TEAGUE: Yes. There could be lots of things I did not see.

The Hon. COURTNEY HOUSSOS: So your recommendation would be that the current arrangements or something similar would be more appropriate than what was in place before, and that this is obviously more important before an election than after?

Dr TEAGUE: Yes, absolutely.

Professor GORE: But also that the time given should be adequate.

The Hon. COURTNEY HOUSSOS: Yes, I see your point.

Professor GORE: For example, the Swiss system was up six months before. There is no point putting something up two weeks before you go live.

Mr PAUL SCULLY: Or 44 days before, perhaps.

Dr TEAGUE: Right, exactly.

The Hon. BEN FRANKLIN: Is having access to it six months before the sort of timing that would be ideal?

Dr TEAGUE: I think the longer the better. The longer it is available for people to look at it, the better a chance you have of finding out things that are wrong with it.

The Hon. BEN FRANKLIN: At least six months would be an appropriate recommendation?

Dr TEAGUE: Yes.

Professor GORE: Again, the election—we know when they are happening and if we know there is going to be six months, we can prepare our group.

Dr ESSEX: There also needs to be an opportunity for everyone to come together on what the truth of the matter is—what the facts of the case are. I just want to read you something here. This is a press release that Scytl put out. I am quoting from 22 February last year in the context of Swiss Post. Dr Teague and the team had discovered these cryptographic vulnerabilities—quite serious. Again, I reviewed the copy so I know about how they work. Scytl said that they were based on "misunderstandings related to the cryptographic mechanisms" and that they had confidence that no attack could compromise the integrity of the election results.

They ended up putting out a follow-up press release some months later, on 1 April, acknowledging that the vulnerabilities were in fact correct and that—not directly acknowledging that the researchers were actually right all along. There needs to be an opportunity for these kinds of things to get sorted out because they were not believed initially when it came out. I am sitting in Canada watching this happening globally, just astonished. Fortunately, everything did eventually come out, but that takes time to percolate.

The Hon. COURTNEY HOUSSOS: This is something that Dr Teague has talked about to this Committee in our previous inquiry, which is that the traditional method of scrutiny of an election does not require the expertise that scrutiny of an iVote system requires. That is a clear difference in the way that we need to be approaching this kind of law. Would you agree?

Dr ESSEX: Yes. In fact, I believe Germany has banned e-voting on the constitutional grounds that it requires expertise to verify the vote and that it should not. That would be an interesting legal precedent to study in this context.

The Hon. COURTNEY HOUSSOS: Is that Germany in their national elections or a particular part of Germany?

Dr ESSEX: I believe it is their national elections and I believe the case for it relates to their constitution, the Grundgesetz—the fundamental laws. In Canada the comparable law would be the charter. I do not know if there is a comparable bill of rights here.

The Hon. COURTNEY HOUSSOS: The Constitution.

Ms FELICITY WILSON: There is not.

Professor GORE: Can I just read another quote that I have here, which is, "The High Court of Kenya recently annulled a partially electronic election on the grounds that the polls were neither transparent nor verifiable." This is why I am warning you about the possibilities of a court case here. It is happening around the world. The Kenyan system is based on British law because they were a colony.

Dr ESSEX: I have been an expert witness in a case in the Ontario superior court relating to online voting and the verifiability of it, so it is happening.

Professor GORE: If you think about the processes that we have in place with scrutineers and the secret ballot and whatever, there is 100 years of history of why it is that way. To just throw all that out the window because of convenience or because of technological advances which, as I say, we are still doing research on—

Ms FELICITY WILSON: Accessibility?

Professor GORE: —is just dangerous.

The CHAIR: Thank you for appearing before the Committee today. The Committee may wish to send you some additional questions in writing, the replies to which will form part of your evidence and be made public if you are happy to provide a written reply to any further questions.

(The witnesses withdrew.)

RICHARD BUCKLAND, Director, SECedu Australian Cybersecurity Education Network, School of Computer Science and Engineering, The University of New South Wales, affirmed and examined

ROLAND WEN, Visiting Fellow, School of Computer Science and Engineering, The University of New South Wales, affirmed and examined

The CHAIR: Good afternoon. I now welcome the following witnesses from the School of Computer Science and Engineering at the University of New South Wales, Professor Richard Buckland and Dr Roland Wen. Thank you for appearing before the Joint Standing Committee on Electoral Matters today to give evidence. You may make a short opening statement.

Dr WEN: Thank you for the opportunity to come here and talk to you today. A main concern with iVote is that iVote is vulnerable to a wide range of risks that threaten integrity and trust in our elections, so we need new measures to ensure that all the risks are properly considered and addressed and we recommend introducing independent oversight by technology experts. There are systemic problems with the current approach to addressing the risks and these have persisted in the absence of technical oversight. iVote has low assurance of security and reliability and also low transparency and scrutiny. It is a fragile system that had extended outages without even coming under attack. This is because it is designed, built and operated using basic commercial practices, so it is not fit for purpose for critical national infrastructure.

What is needed is failure critical engineering practices that are going to provide high assurance of security and reliability and also rigorous, open scrutiny that this is so. Otherwise voters using iVote cannot be sure that their votes are going to be counted as they intended, and other voters and also candidates cannot be sure of this either. This undermines confidence in the electoral process. It just would not be acceptable if a paper-based voting channel had all of these failings. Of course none of this is done by intention. In fact a key objective in developing a new iVote for this election was to provide stronger transparency and scrutiny, in particular with public verifiability. But this did not happen and the potential benefits were not delivered. There is a repeated pattern of procuring a new iVote system that does not meet key requirements, yet is still used.

It is a big warning sign of problems in the governance and risk framework that this has been able to keep happening. The crux of all of these problems is that technology fundamentally changes the very nature of transparency, scrutiny and security in elections, so we need provisions that are specifically designed to address these issues in internet voting. We can learn from international best practices where one of the core provisions is independent oversight by technology experts. This is absolutely essential for helping to ensure rigorous, ongoing oversight of failure critical engineering practices, of transparency and scrutiny measures and of risk and governance. We should adopt this at minimum as a starting point. I welcome any questions about this. I will hand over to Professor Buckland.

Professor BUCKLAND: I just have a few brief words. We know the people in the NSW Electoral Commission that implement this system and in no sense is this any form of criticism of them. They are hardworking, intelligent, diligent people doing the best they can. I would like to contrast the difference between a tragedy and a catastrophe. In the last rain my house had leaks. It is going to cost us a lot of money to fix it up. The builder is coming back and working on it. That is a tragedy. But if I had got that builder—who I would use again because he is a nice guy, even though he did not put the right flashing in—to build a dam, Warragamba Dam, and there was something wrong with it, that would be a catastrophe. We need to treat tragedies and catastrophes very differently.

The problem with electronic voting is, because it starts small, errors look like tragedies. There is scope creep and the potential for catastrophe is building up. If he built a small dam with a small amount of water behind it, it would have been fine. But then if someone just filled up more and more water behind the dam without anyone noticing, suddenly the flaws and errors that he has introduced become quite serious. I hope that you will ask us questions about what is the difference between a commercial quality system and a failure critical system, because an electoral system should be a failure critical system and that is very different to most software written by most people, including electoral commissions up until now. There are I think four risks that are relevant to think about with electronic voting.

One is the risk of attack, malicious attack. We have always brought this up and we are normally laughed at. But no longer are we laughed at I think now because we have seen evidence of nation-states doing it. A very easy, cheap way of having a large impact on a country is to the single point of failure, the bottleneck. Where you can attack cheaply and make a big impact is at the election. We have seen that multiple times. So attack is a serious concern and needs to be thought about. Secondly is just error. We have seen repeated error every time electronic voting has been used around the world. It is very hard to defend against error. Thirdly, there is public perception. I always think the good thing about an election is you have a change of power and there is no bloodshed. I don't really even mind who gets voted, I just don't want anyone killed. So public believing in the system is very

important and we are privileged in Australia to have immense faith from the public in our electoral system and in our voting. I do not know if other countries—you would know, Dr Wen—I think we are in the top three in the world.

Dr WEN: Yes.

Professor BUCKLAND: That is partly because we have such excellent electoral commissions and because we have compulsory voting and everyone participates, so there is immense public trust in the system. I remember when Donald Trump was first being voted for in that first campaign, he said close to the end, "If I am not voted in it is because the electoral system is corrupt and it has been rigged." That is a terribly dangerous thing to say. That sent chills into my heart. Thank heavens, almost, he was voted.

Mr PAUL SCULLY: Said no-one ever.

Professor BUCKLAND: Because if the public does not believe the system then suddenly we are moving away from civil society. I think there is a danger of that. The third is the danger to the secret ballot. I was really pleased to hear my colleagues talk about that before. We take the secret ballot for granted. It is an Australian idea, it is a brilliant idea. We see that—it is actually not an Australian idea, the Vatican has used it forever for the election of popes. It is very important that no-one knows how any other cardinals vote and they have a very elaborate system. Politicians themselves I notice often are arguing whether a vote should be secret or by a show of hands and I think it is recognised we get different outcomes when it is by show of hands—or there is the potential for that. The secret ballot is such a cherished and beautiful thing that we just take for granted.

Internet voting—were we ever to have internet voting where people vote from their homes—is a loss of the secret ballot. The implications of that are very hard to understand. I think we just need to tread very carefully there or people will have to possibly vote the way their union boss tells them, perhaps people will have to vote openly in front of other people, people might have to vote in front of their husbands, children might have to vote in front of their parents or in front of a religious leader. There is no way of knowing what influence—and what level of maliciousness is behind that influence—is possible once we lose the secret ballot. So they are the four big risks. Do I have a minute or two more? Sorry, I am talking so long. I just quickly wanted to say there are, as well as the risks, benefits to electronic voting.

There are people who would otherwise be disenfranchised or who are disenfranchised already to various extents and electronic voting can help with that. So postal ballots, I think we all know overseas postal ballots, most of them sent in with the best of intentions are never counted. Those poor people are disenfranchised without knowing. So that is clearly better. There are some people who need assisted voting or need to vote from home, and electronic voting can help there. They already have compromised votes. They have already got compromised secret ballot. This is potentially better than what they have. Then there is the contentious issue of postal and pre-poll voting. I am personally not a big fan of these, but we have them and this is a potential way of improving them.

So there are certainly benefits with electronic voting. I think our big concern is that in embracing those benefits and saving money and making elections more pleasant for people to vote, we are at risk of having a scope creep without anyone noticing. The water fills up behind the dam and we are at risk of a catastrophe—a catastrophe like we saw in the Iowa election recently, like we have seen with the hanging chads, like we have narrowly averted many times. A catastrophe, when it happens, like with the Australian Bureau of Statistics [ABS]—do you remember the ABS? The loss of faith in the bureau? Amongst my young students, most say now they will not tell accurate information when they report. Perhaps they are unusual students, but there is a loss of faith because the people who were supposed to be looking after their data were just demonstrated not to be competent. So there is that huge risk. We have three recommendations. Do you want me to mention them?

Mr CHRISTOPHER GULAPTIS: Yes.

Professor BUCKLAND: One is that electronic voting should never be expanded to include internet voting, other than in those very, very limited cases we have talked about already where it is a clear benefit. As soon as it is internet voting, the risks make my blood run cold. Two is that we should be very careful not to have scope creep and expand. Whatever we approve and set up and build, it should be with really clear limits that cannot just be changed without people noticing from year to year. The dam cannot surreptitiously fill up, like the Mulholland Dam in America—you might know that terrible disaster—that collapsed and killed over 1,000 people. When that dam got too big, it broke and flooded. I am hoping that the water does not rise behind the dam without people knowing. We can put limits on that.

Third is there definitely needs to be independent scrutiny of any system that is set up—arm's length. My students go out and do wonderful things in the world. They run security at the major banks and at Google. They go to America, they go to lots of large companies, and they come back and report what they have noticed in the

security world. They are in the security community. They are much smarter than me. I have never heard from anyone of any serious organisation implementing some sort of security measure and having the same people in charge of auditing that measure, and the governance and supervising that measure. The banks stopped doing it 10 years ago. If someone writes a system, designs or builds a system and has to operate a system, someone else—not just in the office next door, but someone at arm's length—is responsible for auditing, scrutinising and observing that system.

That would be recommendation number 3. It is just putting the Electoral Commission in the way of moral hazard, as we have heard from the previous people. And the vendor as well—if we were expecting them to say things about themselves that makes them not look good, it is just very hard for anyone to do that. Last of all, my third recommendation, which turns out to be my fourth, was that the process we have that gives us safety at the moment is scrutiny—that people both believe in the system and are able to scrutinise it or know people who can scrutinise. I hope we can work out a way of having effective scrutiny and openness in whatever electronic systems are built.

The CHAIR: Thank you. I neglected to mention this prior to your address: The Committee has received a joint submission from you. Would you like that submission to form a part of your formal evidence?

Professor BUCKLAND: Yes, please.

Dr WEN: Yes.

The Hon. PETER PRIMROSE: You may not be expecting this one. Can you elaborate on the difference between commercial as opposed to failure-critical systems?

Mr PAUL SCULLY: That was my question.

Professor BUCKLAND: The previous speakers alluded to it a bit too. It is really good. The banks want their systems to work—their ATM network to work. If you look at CommBank, it has a wonderful system but still it goes down. There is not a year goes by without the ATM networks going down. Commercial-grade software is written with best efforts to do the best you can with safeguards to mitigate and control risk if things go wrong. It is just not in anyone's interests to write a ridiculously expensive secure system there, because it will just cost too much and no-one could afford it and it would be too onerous for people to use.

That is commercial-grade software. That can work because when things go wrong, it is not a catastrophe. If there is an error in a banking system and I get money and the bank loses it, it is in the bank's interest to notice it and the bank has the ability to detect the data and notice the thing and fix it. If there is an error against my favour—so the bank gets more money because of an erroneous transaction and I get less—it is in my interest to notice it, and I have the available data to detect and monitor that. So interests align and balance and we have sufficient information for that to work. Also in a commercial system, the expectation of an occasional failure is okay. It is all right if the ATM network goes down for an hour or two. Everyone gets really annoyed, but it is not the end of the world.

A failure-critical system is something like in a space shuttle, like the Challenger, where the failure of a single component can lead to a catastrophe happening. In situations like that, past data does not let you estimate future risks because these failures happen very infrequently and you can go for a long time without a failure. You can say, as NASA did, "We've launched hundreds of flights without a fatality, so things are pretty safe and we're okay." "I've lived on the edge of this volcano all my life, and since my father it has never erupted so it probably won't." But, of course, with a failure-critical system, one failure is enough to do it. If one plane crashes—the 737 MAX, for example. It went for a long time with no crashes. You could think, if that was commercial-grade safety we needed to have there, that that would be okay. But, actually, the fact that there was a flaw and an error and a risk is a really serious thing. The difference is with one you can afford to have failures; with the other you cannot.

As the previous speaker said, because of the secret ballot and the nature of the secrecy of the ballot, the people on one side of the equation do not have sufficient information to notice when something goes wrong. And, frankly, they might not even be suitably motivated. A lot of voters—I am conjecturing here—might not care so deeply about their vote, based on the fact that people seem to make up their vote as they are approaching the polling station. Perhaps for some people it is not a really precious thing, so they might not be motivated to protect their vote. So there is not necessarily the right checks and balances in place.

The Hon. PETER PRIMROSE: I think you have covered the points, thank you. I would like to read you a quote from the Electoral Commission's evidence and then ask for your comments, please. It is relevant to the question I have just asked. The quote from the Commission's evidence is this:

… one of the principles that we try to apply is to make it so it is verifiable from the input of the vote all the way through to the count. More so than in any other voting channel, there are checks and mathematical proofs in place to prove that the data that was put into the system matches the data that comes out the other end. We have independent auditors who audit that process. We have got a cryptographer who comes in to check all the cryptographing to ensure that all the mathematical proofs operate correctly.

Your comment?

Professor BUCKLAND: I imagine that we both have things to say.

Dr WEN: They may have done certain checks internally or got third parties who are paid to do this, but there is little open public evidence and there is no opportunity for public scrutiny of things. Actually, this system was intended to be able to provide some degree of public scrutiny of these artefacts, but it did not in the end. You actually needed a non-disclosure agreement to be involved in any sort of in-depth scrutiny of these artefacts.

Professor BUCKLAND: I have something to say. I am really glad you read that statement. I find that a very troubling statement. There are two things to say about verifiability. One is if you could achieve perfect verifiability, how good would that be? Would that solve our problems? The second one is to what extent did they achieve perfect verifiability? I will go backwards. So they did not. I think Dr Teague, who is the Australian expert in verifiability, would agree here: There were so many ways it did not. Merely describing something—it is almost misleading advertising. Using the word "verifiability" does not make a system verifiable. Having the verifiable app produced by the same people who produced the original software, having it all secret and not being able to know what is going on, means we are trusting them that it is verifiable. It is possibly better than having just one thing, but it is not true verifiability.

Saying "We have a cryptographer" is just a ridiculous thing to say, if I can be as bold as to say that, because I know many cryptographers. You could have six of them in a room—the smartest people in the world—and they would still make errors, all six. This is why we have peer review and testing, and even so we find errors eventually. So just having one person is more a call to authority. If you have ever seen *Raiders of the Lost Ark*, there is a wonderful scene at the end where the Ark is locked away in a room. Indiana Jones says, "Where is it? This is a weapon of unimaginable destruction. It needs to be studied and understood." They say, "Don't worry. We have top men looking after it." He said, "Who? I don't know who these people are. Who is looking after this?" And they go, "Top men." My wife and I have this joke. Whenever anyone does a call to authority like that—"Oh, we had a cryptographer check it!"—we go, "Top men."

The point is it is sort of telling us to shut up and don't ask questions. Mathematicians can be wrong. Cryptographers can be wrong. There is a famous result from my own university—I will not go into much detail because it is slightly embarrassing—where someone was able to prove an operating system was absolutely secure and correct. It wasn't, because they had some wrong assumptions at the beginning, if that makes sense. Actually, there is one in the American military where they prove that—anyway, there is this Bell-LaPadula model of information flow and someone was able to prove that a system was compliant with Bell-LaPadula and everything worked. But then someone, a young child—like the emperor has no clothes—said, "But I can do this. Doesn't this violate everything?" They said, "Oh, yes. All our proofs were correct. We just had the wrong assumptions at the beginning." They had to introduce a new assumption called tranquillity.

Pleading and calling out to authority is just no good. This is why we want openness. Saying, "Trust us, we will build it, it's good—we've had three or four people who are quite good working on it," is not good enough. If it is good enough then let all the great cryptographers in the world look at it and debate it. We might not even find the errors for 10 years but I guarantee there will—I would put money on it. Whoever said that statement, I would bet them a Mars Bar, happily, that they are wrong. The second part is even if we had full verifiability, even if it was possible—end-to-end verifiability—for a person to check that their vote was cast as they intended, recorded as cast, passed through the system correctly, counted correctly, tallied correctly and the correct result was got. Even if all of that was possible—I frankly am very sceptical that that would ever be possible in an engineering sense—that is not enough. Verifiability just tells you nothing went wrong, or that the particular thing we are thinking about did not go wrong.

It is like saying we have got a black box recorder on the plane and if the plane crashes we can find out and we will know. Actually, the real thing is you do not want the plane to crash. Verifiability is no good after the event. It is the day after the election and suddenly the red light goes on and the election results are invalid. Everyone is standing around and no-one knows why but the verifiability failed. What do we do? Do we have to have another election now? Who is in government? What is going on? I think the statement is said with optimism by people who think the system will never go wrong. They will use verifiability to reassure everyone that the system did not go wrong. Speaking as a security engineer, I know systems always go wrong. This will tell you it has gone wrong but it won't necessarily tell you how or why it went wrong. It will leave us in a limbo. I think verifiability is part of an effective way of running electronic elections, but it is only one part and it happens at the

end. Much better is to build a safe system from the beginning, with openness and scrutiny and lots of brains looking at it, so there is less chance of the plane crashing.

The Hon. BEN FRANKLIN: I have got three issues I would like to talk about, if that is okay. The first is just a broad one. I appreciate both your comments and the tenor in which they have been given. I think it has been very refreshing and extremely helpful for the Committee. You make an exception in terms of not abolishing iVote immediately and suggesting that it should and could continue to be used for vision-impaired voters. I appreciate that. My question is would you consider using the same logic to say those in extremely remote areas could continue to use the current system? I understand your dam analogy. I think it is a beautiful analogy. But they are obviously the voters about whom I am most concerned. Would you say that that is not an inappropriate intellectual or philosophical leap, if we keep this same technology before we look at building a better system?

Professor BUCKLAND: I understand the question. Let me repeat it back, just to make sure I have got it. In the long run we would be wanting to move to a more secure system, or possibly we would.

The Hon. BEN FRANKLIN: That is your contention and I absolutely agree that that would be better.

Professor BUCKLAND: But in the short term, should we just do nothing and stop using the system entirely, what is the risk of using it in limited cases? I think that is a really good question. As an engineer I think I would say you just do the best you can at any given time. Unless the numbers were so large that it would taint the election—like, lead to a different outcome—it is very important that everyone is enfranchised. I would think deeply about it. I am only an electronic security person, I am not a voting expert, but my thought would be actually I would think that would be quite okay. My nervousness would be, now putting my pragmatic hat on, that once you say to someone, "It is okay to keep using this system; it's all right," then people can say, "They think the system is all right and maybe next time they will let someone else—" That would be a disaster.

The Hon. BEN FRANKLIN: Yes, and the only reason why I am going down this line is because you do in your submission, in the introduction. Dr Wen, did you want to add anything?

Dr WEN: Yes. I think there is also something where we do not know what the risks are and how the risks have been assessed and what has been done in this area. Part of this is we need to have more transparency about what the process is for managing the risks that are associated with this. Of course we want to give people the opportunity to vote, especially when they are experiencing a lot of difficulties with it, but we do not want to be giving them a channel where their vote is going to be compromised by this.

The Hon. BEN FRANKLIN: Or has the potential to be compromised.

Dr WEN: Yes. I am not very confident in the risk management framework—for example, how mature it is and what sort of assessment has been made about in what cases it is reasonable to accept the risks for the benefits and in what cases it is not.

The Hon. BEN FRANKLIN: Can I move to a second issue, which is more about incompetence rather than conspiracy? We saw a debacle in the 2015 election where political parties were actually left off the ballot paper on iVote, which was appalling and thankfully not repeated. But we did see in 2019 that the iVote system went down and crashed on numerous occasions, making it very difficult and creating an enormous amount of frustration. I was wondering if you had any comments about the competence of the system or, broadly, what are your concerns in terms of that side of things?

Dr WEN: I think this is a symptom of a commercial-grade approach to developing and operating the system. There are very short time frames that are often unrealistic for how ambitious the project should be. Essentially, the election is a beta test to iron out the bugs instead of having small-scale beta tests—maybe pilots of a by-election or something—to iron out the bugs so when you have got the main event, you have a lot more assurance that these things are not going to happen. That is what is the current approach and that has been repeated over and over. If we keep going the same way, it does not seem that anything is going to change the next time around.

Professor BUCKLAND: I actually think we are lucky that this happened. In failure systems you normally do not get any sort of warning. Everything is fine, everything is fine, everything is fine, until it is not. Seeing things like this, which is essentially a repeat of the ABS thing after we know about the ABS thing, with a perfectly understandable, predictable and knowable volume of voting—there was no surprises here, yet the system failed. It failed in a way that we could see. I was trying to vote at the time; I couldn't. I could see it. Of course, the really insidious failures are the ones we cannot see. There is utterly no reason we should think that the quality is any deeper if you cut through the system and looked at the hidden things. So I would be very alarmed by all of that, but not surprised, because the people that built the system had a very short amount of time and a very tight

budget and as much expertise as they had—as much as anyone has. You are right that it is a warning sign. Fixing that problem will not fix the real problem, but we are hearing the tremor.

The Hon. BEN FRANKLIN: The final issue is the one that has been raised both by the two of you but also by Dr Teague and her colleagues in the previous session and is the one that is one of most concern to me. That is, that the people who are running the system are also auditing it. I would like you to comment on that in more detail and particularly provide us, if you can, with any specific recommendations about that particular issue that we could look at.

Dr WEN: The basic approach is maybe that they get a big name like PwC to take part in the auditing. They have engaged some experts to provide, say, source code reviews and that kind of thing. I think there is a difference in that the Electoral Commission is setting the scope for these audits and they may be quite limited in time and budget. They are quite time boxed. There are limits to what they can do and limits to what they can publicly report, of course. I think we need some sort of arm's length oversight that is able to set clear mandates about what the expectations are and what needs to be done, instead of having a single body that determines this. It is really largely at their discretion.

If the system currently fails checks and balances or does not deliver what it is expected to, it can still be used regardless. There is no external oversight to determine if that is the right call or not and, of course, within the organisation there are natural pressures to make sure the system is used. Essentially they have committed to using the system once they have signed the contract with the vendor, which is typically a year or less then a year out from the election. It is very hard to see that they would not end up using the system for the election regardless of what sort of problems are found.

The Hon. BEN FRANKLIN: Should not the Electoral Commission itself be performing that oversight for example?

Dr WEN: I think it does need to provide closer oversight of its suppliers. But it does develop systems in-house as well. I believe the registration system was developed by the Electoral Commission and that was the source of the outages that occurred. So who is going to provide oversight of that and the whole governance framework as well that the Electoral Commission has? There needs to be oversight, external arm's length oversight.

Professor BUCKLAND: Yes. I think that is right. Absolutely they should be conducting, as part of the proper software engineering process, scrutiny of the people they are employing and things they are outsourcing but that is different to an independent check. If we just restrict ourselves to the last of the three risks I was talking about, maybe that does not seem so bad, error and so forth. But I am most interested in attack. That a nation state could change the outcome of our election. So you cannot have a single point of failure and if the organisation that does the job and commissions the job also audits and polices the job, that is a single point of failure. An insider or an overlook or a weakness there compromises the whole thing. It is a very easy, tempting target to attack. There needs to be—sorry.

The Hon. BEN FRANKLIN: No, no please.

Professor BUCKLAND: In my opinion there needs to be oversight from a body that is independent of the Electoral Commission.

The Hon. BEN FRANKLIN: Would you contend that the rise of electronic voting, the gradual increase of it in Australia, proposes such a significant potential risk that is very different to every other form of voting that we have, that that in itself warrants a new and independent oversight because of the potential risk down the line to the integrity of Australia's political systems?

Professor BUCKLAND: That is an excellent statement.

Dr WEN: Yes.

Professor BUCKLAND: Can I make a quick comment? Why is it different to every other risk we have had? Because all the other risks are down to random errors largely, which cancel each other out. Whenever we have recounts, the total moves but it always moves only by a little bit because we find some that were— the real risk with electronic voting here is that we have centralised everything into one spot and you can have a systemic error that affects everything.

The Hon. BEN FRANKLIN: And if the numbers increase like they have with pre-poll voting, if they start exponentially increasing, then as you say in terms of the dam it exponentially increases the risk.

Professor BUCKLAND: Yes.

Mr PAUL SCULLY: Thank you for your testimony today. I think touching on what Dr Teague and her colleagues have said, they have suggested that at least six months before an election the iVote software be made open source. Given there are other electronic systems moving into the conduct of elections, not just the iVote system but also the roll as we have identified and that had its own problems, but also in the count. The potential for automation and scanning of, particularly the Legislative Council ballots. In addition to at least a six-month period—and I will get you to comment on that time frame—of the software being open source, would you also suggest it should be supplemented by a panel of experts that are brought together to advise the Electoral Commission or perhaps others where there might need to be changes made or vulnerabilities in the system to be identified?

Professor BUCKLAND: Absolutely.

Mr PAUL SCULLY: And at least six months ahead—for the source code for iVote—would be sufficient?

Dr WEN: To be honest I think that is a bit tight.

Mr PAUL SCULLY: Okay.

Dr WEN: You are publishing the details of the system. You need people to read the documentation, understand the system—and this is assuming they have got no questions and you have fantastic documentation and the code is really, really clear and it is very straightforward. So you have to understand the system and then you may find problems in the design, find problems in the code—these are two actual different things—protocol level design flaws, security flaws in the code and also flaws in the code in not correctly implementing the design. There are lots of different types of analysis that you need to do.

So you find these problems and then you need to report them. Then the Electoral Commission and the vendors need to triage them. They need to understand or are these valid issues that are being raised? They may have issues coming in from multiple sources that are being reported. They need to triage these. They need to remediate the issues. They need to test the fixes and then it needs to be re-reviewed. Now six months is really way too tight for that in my opinion. To do something really rigorous for this type of complex and critical system.

Mr PAUL SCULLY: Your recommendation one is about limiting the scope of who iVote is available to and that was the original intention of the former Minister—who is sitting next to me—when he introduced it. It was to limit it to those groups who are clearly disenfranchised by the physical vote. Running a number of elections with some independent verification, both prior to the election and post-election on that small group, would that help— well it would limit the risk for a start by limiting the cohort. But would that also help identify vulnerabilities as we go through time?

Professor BUCKLAND: Oh, I see.

Dr WEN: Do you mean running pilots?

Mr PAUL SCULLY: It is essentially a pilot, is it not? You have got a small cohort that would be eligible for it in the original design intention of iVote and to have the system checked prior to its use, post its use, by that potential group of experts. Would limiting the cohort assist in identifying and troubleshooting vulnerabilities through time?

Professor BUCKLAND: I have a thought which is yes. That is very good. But we have to be careful. For example we know with lots of our infrastructure that it is constantly being scanned by foreign actors. They are not doing anything. They are just building up a bank of vulnerabilities that we have in our systems in case they need to use them. So I would imagine that if an electoral system was being continuously tested and tried, that is great because that helps us understand it and less operator error and things. So that is really good. But we would not necessarily find the deep weaknesses—unless we were being really careful—and the bad guys that found the deep weaknesses will not necessarily act on them and bring them to our attention. They will wait until the water fills up behind the dam.

Mr PAUL SCULLY: Okay.

Professor BUCKLAND: I would not think that a period of running it safely without problems means we can say, now we can scale this up. But absolutely. One of the problems with electoral systems is they are used so infrequently. A system that is used infrequently—that fails invisibly—is a recipe for a perfect failure system.

Mr PAUL SCULLY: Does that then lend itself to the development through the State's territories and the Commonwealth working together on a system that could work and be applied nationally, again only to a limited group? Might that be a better way of doing things rather than every jurisdiction running its own?

Professor BUCKLAND: Yes. In so many ways that would be good. Combining talent.

Mr PAUL SCULLY: Of course that gets bogged down in its own bureaucracy especially when you get to the COAG.

Professor BUCKLAND: But using it more often, that is a very important thing to do.

Mr PAUL SCULLY: Thanks.

The CHAIR: Thank you for appearing before the Committee today. The Committee may wish to send you some additional questions in writing and the replies will form part of the evidence taken today. Are you happy to provide written replies to any further questions?

Professor BUCKLAND: Absolutely.

Dr WEN: Yes, of course.

The CHAIR: Thank you.

<center>

(The witnesses withdrew.)

(Luncheon adjournment)

</center>

LACHLAN JAMES "SAM" CAMPBELL, Director, Scytl Australia Pty Ltd, affirmed and examined

The CHAIR: I now welcome Mr Sam Campbell, director of Scytl Australia Pty Ltd. Thank you for appearing before the Joint Standing Committee on Electoral Matters today and giving evidence. Can you please confirm that you have been issued information about the standing orders that relate to the examination of witnesses?

Mr CAMPBELL: Yes, I have.

The CHAIR: Do you have any questions?

Mr CAMPBELL: No.

The CHAIR: The Committee has received a submission from you. Would you like this submission to form a part of your formal evidence?

Mr CAMPBELL: Yes.

The CHAIR: Would you like to make a short opening statement?

Mr CAMPBELL: Thank you. I thank the Committee for calling me here today. I am Lachlan James Campbell, but I am known as Sam. I represent Scytl Australia, which is a subsidiary of Scytl Secure Electronic Voting, a company based in Barcelona in Spain. Scytl provided the software for the iVote system during the last election. Scytl has been involved in electoral projects around the world involving electronic and internet voting since 2001, as well as other electoral services. At the core of Scytl is the research and development team, whose primary focus is on election security and utilising cryptographic protocols within this context. I have appeared before this Committee previously, in 2016 following the 2015 election, and was pleased to see Scytl chosen through the NSW Electoral Commission tender process to again deliver software and services for parts of the iVote system for the 2019 State election. Scytl appreciates the confidence displayed by the NSW Electoral Commission by again selecting us as an iVote technology supplier. I have been invited to appear here today and would like to share some thoughts prior to taking questions from yourselves.

When looking to take on a project, a business will evaluate many aspects. One of the aspects is who benefits. Who benefits is a great question to reflect on for the iVote project, because the answer is simple: The beneficiaries are those who would otherwise have difficulty voting on election day. Whilst these cohorts of voters have legislative terms that define them, they are real sectors of our community. They are the visually impaired, they are the elderly, they are the disabled, they are those who struggle to attend the polling place. They are also those who do not have a physical restriction preventing them from attending a polling place, but the tyranny of distance makes this hard. Maybe they are on holiday in another country or they work on a farm in outback New South Wales and very occasionally drive to a location which may have a polling place. Getting to a hill with mobile coverage may be easier than driving further into town. I understand earlier today Mr Green made a comment that around 200,000 votes may not have been collected if iVote was not available.

It can also be useful to look beyond the immediate benefit. Whilst these statistics are old, they are illustrative. Analysis of data from the 2004 Australian Federal election showed that around 94 tonnes of paper was used on ballot papers alone in that election for the State of New South Wales, which is over 2,250 trees. If 5 per cent to 10 per cent of this can be saved using iVote in major voting centres in the future, combined with the current cohort of existing users, we have realised another benefit of the system. So we have a clear idea of who benefits and we have an idea of the positive impact in the current environmental landscape.

We see doubt from some about the verifiability of the system: How confident can we be that a vote has been recorded the way a voter intended? This has been the subject of academic discussion consistently over time. In 2011, the iVote system did not offer the ability to verify your vote, and this became the subject of suggestions for improvement. In the 2015 update to iVote implemented by Scytl the telephone verification system was introduced, which allowed a voter to listen to their vote over the telephone system. That would give them the confidence that they had cast on the internet, and then they could listen to it over a phone system knowing that they were separate systems.

This had a verification rate which was seen as mathematically significant. Very low—it was 1.7 per cent—but it is mathematically significant. However, this is a result was not as high as people would have liked—both yourselves and ourselves. In this most recent update, Scytl introduced the verification client—a mobile app that allowed a voter to review the vote they had cast to see if it reflected their intention. This time, take-up has been significant, with almost one in every two voters choosing to verify their vote. That is a lot of voters; we have gone from 1.7 per cent to something just under 50 per cent. This allows them to confirm whether their vote was cast as they intended. Looking forward, I see a continuing need for iVote, with the strongest requirement being linked to the decline we are familiar with in the postal system. As discussed in the past, Scytl

sees parallels between the postal system and iVote from a security standpoint, allowing for the substitution of those ballots being collected by mail to being collected by iVote. This maintains the current cohort who can use iVote and aligns with the risks iVote is designed to mitigate.

I would like to add to prevent confusion, because I think there was a little last time, that Scytl provides the software package to the NSW Electoral Commission. The Commission receives the software package from us. They install that system into the overall iVote system and they then run the application. I want to comment a little bit on responsible disclosure, because I think it was relevant to some comments I heard earlier today. There was a question: Why 45 days? The number 45—we could debate whether it is 30 days or 60 days, more or less. Ultimately, what people look for in responsible disclosure is that if someone finds a deficiency in some software— the means to exploit it—that that be passed to someone who can resolve the issue and then have that issue fixed before everyone in the world knows that there is an issue there.

For example, within 45 days we might expect to hear about an issue with some software. As for other people who produce software, we would like to notify our existing customers. We would like to generate a patch. We would like to be in a situation when we hit 45 days that the issue is resolved before anyone is impacted by it. There is nothing in the non-disclosure agreement that we ask researchers to comply with when looking at the source code for the current New South Wales system after the election that restricts them from having free use of that information after the 45 days. They are free to go and make their own statements and conduct themselves as they will. I believe Dr Teague is the first come to Scytl under a responsible disclosure outside the Swiss vote counting program. Scytl has been in existence for nearly 20 years and that is the first time.

Finally, before taking questions, I would like to make a final comment about an issue of which we are aware at Scytl. Last year started well for Scytl, with the company being granted an award at a conference at the United Nations by the Zero Project for Scytl's innovative practices supporting persons with disabilities to vote independently, privately and securely through our work on the New South Wales 2015 iVote system. Following this the iVote 2019 system did not reach the same level of accessibility. We found ourselves running out of time in the lead-up to the election based on feedback from independent visually-impaired reviewers of the interface. Scytl expects the last of the accessibility bugs to be resolved with a patch that arrives with New South Wales before the end of this week. I am happy to take questions.

The Hon. BEN FRANKLIN: Thank you very much, Mr Chair. Good afternoon, Mr Campbell. Thank you very much for being here. Did I see you in the audience for the previous two sessions with Dr Teague, Professor Gore, Dr Essex, Professor Buckland and Dr Wen?

Mr CAMPBELL: Yes.

The Hon. BEN FRANKLIN: The first thing I would like to ask is, how would you like to respond— no, I would like you to respond to a range of concerns, many of which I thought were valid, or at least appeared to be valid, that they expressed, because they did cast quite a lot of doubt on the integrity of the system and the potential for abuse. I would be grateful if you would respond and hopefully put our minds to rest.

Mr CAMPBELL: So they did cover a number of issues and I would have noted some down on my paper. I thought it might be easy for you to suggest ones that specifically interest you. I did touch on the responsible disclosure because I did hear that there was some discussion about, "Why 45 days? Why isn't it valid immediately?" We see part of our role as supplying some software to a customer. If someone finds a bug in that we do not want to be the channel by which other electoral commissions are exposed. For instance if there is an election happening in two parts of the world at the same time and someone notifies us of a bug, say, in the New South Wales code and that is being executed in another location, we do not want to end up with two electoral commissions possibly impacted or possibly more. When I look at that as a topic, I see that there is a requirement to meet the needs of multiple governments and multiple users of software, whilst still making it very clear to people that there is a vulnerability that needs to be addressed.

There were two incidents in the previous election where we were notified of bugs that were sourced from the Swiss system. Now, at the start of the New South Wales election there was a bug bounty in place in Switzerland and the Switzerland system uses Scytl software. People reviewed that source code under the bug bounty program and also there was an intrusion test, so people could actually attack a system as well as review the full source code. People found what they believed was a vulnerability in that system and that was published. Scytl responded to that. It was then communicated to New South Wales that New South Wales might be subject to these same vulnerabilities because there is some common code—in fact, a reasonable amount of common code—between Switzerland and New South Wales. Now, when the first issue was analysed by Scytl we found that New South Wales was not—we did not view them as immediately affected because of the way New South Wales had implemented the software. We gave that feedback to New South Wales.

In the New South Wales system we have the online voting system, which is where when you cast a vote your vote goes into that ballot box, then we have as part of the 2019 system a mix-net. So what happens is the votes go from the voting system into a mix-net and the intention of the mix-net is to shuffle the ballots and remove the connection between the voter and the ballot while still giving confidence that the input to that system and the output to that system are the same. That is where the cryptography comes in and it is around showing that the data in is effectively the data out, without tying it to an individual. When we reviewed the vulnerability that was found by these researchers, the New South Wales system was protected because of the offline presence of the mix-net. We have a paper that responds to how that works which we can make available. In fact you will find it on the internet. So we talk about that and we show how we did that.

We did actually generate a patch to alleviate the potential for that vulnerability to be exploited. Now, following that at the end of the election there was another release that was coming from researchers and that talked about another vulnerability that they believed had the chance to disrupt the election, to change people's votes. We viewed the information that we had about that and the analysis was that you could not change a vote without detection. So whilst you could argue that there might be a vulnerability, the lights would go off immediately. You would see it and it would be clear.

The Hon. BEN FRANKLIN: Who would see it?

Mr CAMPBELL: When you go through the verification there is analysis of the results of that system and you can do some maths on that which tells you if the result is clear or not.

The Hon. BEN FRANKLIN: You said the lights would go off and you would see it straightaway. So the moment there was concern—

Mr CAMPBELL: When I say "the moment there was concern", we go through the mixing process and out of that there are some data files at the end of various steps. The Electoral Commission, ourselves or others can analyse that mathematical data and tell if it is correct or not correct. When that data was to be analysed it would have been clear if the votes were modified or not modified.

The Hon. BEN FRANKLIN: When would that data be analysed?

Mr CAMPBELL: That is more a question for the Electoral Commission. But we are aware that they go through the opening of the ballot box, there is a bit of a ceremony there and then the data is passed on to people for review. Those people are not Scytl, they are independent of us. That goes to them and then they come back and say, "Okay, we're okay with the result of this." To do that they generate their own tools that analyse the data to give a result.

The Hon. BEN FRANKLIN: So it happens after the election. It does not happen during the process. There wouldn't be a red flag during the election itself that the system had been compromised?

Mr CAMPBELL: For the vulnerability that they were expressing at that stage. There are other things that might trigger other alerts during the election. But, in effect, what happens when your ballot is cast is it goes into a secure ballot box and in that secure ballot box your ballot is signed and encrypted and the key to decrypt that are shared between multiple people. That does not come together until the end of the election. That is something that we responded to in some detail in 2015. There is some documentation about that which we can supply.

The Hon. BEN FRANKLIN: Yes, if you could that would be great. I guess the fundamental issue is you drew in your opening statement a parallel between postal votes and the iVote system. That is to say someone puts—I presume this is your point—their envelope into the letterbox and it pops out at the end and then gets counted. You contend that they are in fact the same system, or a very similar system.

Mr CAMPBELL: We see parallels.

The Hon. BEN FRANKLIN: That they are analogous.

Mr CAMPBELL: Yes.

The Hon. BEN FRANKLIN: I guess the contention from the evidence that we have heard from the last two sessions is that they are not analogous at all because with the postal vote system there are a range of individuals and every single vote goes through its own individual channel, whereas here everything goes through the same channel. Therefore the capacity for manipulation or for security breaches is apparent, is substantial, in their mind. That has been the evidence for the last two hours. I would be interested if you can dispel that for us so that we can be comfortable and confident in the software that you provide.

Mr CAMPBELL: So we have a protocol document that is available on the New South Wales—

The Hon. BEN FRANKLIN: By the way if there is anything you would like to take on notice and provide us with further information, that would be helpful too.

Mr CAMPBELL: We can provide some further information about the protocol and the NSW Electoral Commission can fully answer that question, because under its process of procurement it published a lot of that information about the protocol and how it works. But, ultimately, the parallels with the postal service are that you are remote, you are not in a polling place, you are using your device and you cast your vote. That is then effectively put in a digital envelope that is secured in the database, in the electronic ballot box as we know it. Now, if someone tries to break that, that is encrypted and there are also detection mechanisms around that system.

It is a bit like if someone came along with a crowbar to a postbox and tried to open it, you would see some evidence. The system has multiple places where it looks for evidence of unauthorised change. Then at the time of the end of the election we go through the equivalent of someone taking the ballots and opening the ballots. So that is the equivalent to maybe opening your envelopes on a postal ballot. Probably an enhancement to the postal system is the ability of the voter to during that process, and we will need to check the timings, but it is about one hour that they can take the verification app and actually look at their vote in the post box to see if it is as they intended.

The Hon. BEN FRANKLIN: I will get to that in a second.

Mr CAMPBELL: Okay. So they can look at their ballot, they can have some confidence that it is recorded and then that comes to the other end. At the other end, that is where the mathematics looks at the data that goes into the ballot box and what comes out and checks that for consistency. We can supply protocol documents around how that is done.

The Hon. BEN FRANKLIN: Okay. To your point in terms of the check that you are able to do. There was evidence we received before, that you would have heard, contention that it is not appropriate for that check to be done by the same organisation from which the original ballot has been cast. Do you have comments to make in response?

Mr CAMPBELL: To be fair that is a valid argument. There is a case for saying that someone else should generate the verification application. That is an option that is available which at this stage has not been taken up and has not happened in New South Wales.

The Hon. BEN FRANKLIN: Understood. Is that something that could be implemented for the 2023 election?

Mr CAMPBELL: It could be but I would suggest some sort of governance or some sort of process around analysing the risks and benefits of that. For example, this was looked at in some detail by a number of people in the past. One of the risks becomes if someone generates a verification application, let us say we open source that application, a number of people might take that application and then generate their own ones for their own level of confidence that they are verifying their vote. That can give that individual confidence. But if they then upload their verification app that they built to give them confidence and someone else downloads it, then does the recipient of that application know where it comes from? So you do need some way of knowing that this is a trusted verification application. So at the time, and given the pressures to deliver the project in a short period of time—it was less than one year between contract signature and implementation—that is probably a bridge too far to go that extra step. But it is possible.

The Hon. BEN FRANKLIN: Understood. One final question if I may? The contention from the last two panellists was looking at this oversight capacity and capability and the importance of that, that because of the potential risk of electronic voting and because it is so different from every other form of voting in terms of everything being together and there being a potentially larger risk—you will have heard the dam analogy which I thought was a good one—that there should be some sort of level of independent oversight of this part of the process in a way that is not necessary for other parts of the process. How would you like to respond to that?

Mr CAMPBELL: If we go back to 2015, there were a number of parties who attended at the end of the election and did their own analysis of the resultant data. The opportunity was there after the 2019 election and we do see it in other locations so the concept of different levels of governance and different oversight steps is something that is not foreign to us and we do see it in general. Following 2015, this previous Parliament had an inquiry into some of the security around the system. That forms a level of governance too so we are used to these things happening. If that continues, we are in favour of that because we supply software and what gives confidence in the result is not just us saying that our product is great. If you look at our track record, while there were some blemishes in the last year—

The Hon. BEN FRANKLIN: Indeed.

Mr CAMPBELL: —we are doing very well. Having more people look at our software brings credit to that story.

The Hon. BEN FRANKLIN: I guess that does quickly open that door. Would you like to make any comment on the challenges because, certainly in the National Party we got quite a lot of negative feedback about the difficulty of people going online and the system crashing or the system coming up with— is that something you would like to comment on?

Mr CAMPBELL: So just on that. I did hear some people talk about it before but that is why I made the earlier comment that we do supply, we do the equivalent of giving the customer a CD and some manuals how you drive that. We then answer questions, we give them support and we help them out. But as far as I know nobody from Scytl has touched the New South Wales system. So we do not drive it so those questions are for New South Wales.

Mr PAUL SCULLY: You said before I think it was a year in advance that the contract was signed with the Commission?

Mr CAMPBELL: The election was March and we signed the contract around April the year before.

Mr PAUL SCULLY: And you said that was a relatively short period of time for everything that was expected of you. What would be a more reasonable time?

Mr CAMPBELL: That is a how long is a piece of string question.

Mr PAUL SCULLY: Well, you know what was expected of you at this election. If the same expectations were there, what is a reasonable period of time?

Mr CAMPBELL: Some of that comes down to the piece of string question. It comes down to what the Government's model outside it is because as a supplier you are looking at things like the governance, how quickly decisions can be made, what are the steps to go through to actually provide your software and see a successful project at the end of the time. So that is a good question for the customer because they have multiple parties they deal with and they can balance that. I have said previously in response to a similar question that any project of this scale that comes in under a year is always tense. I used slightly different words but—

Mr PAUL SCULLY: Sure. You said you do not drive it once you have handed it over to the Electoral Commission but if there is a problem found with the source code that is behind it, do you provide patches or updates?

Mr CAMPBELL: Yes.

Mr PAUL SCULLY: Can any of those be installed—or were they installed—during the period while voting had commenced?

Mr CAMPBELL: I was giving a simplistic model. Effectively we will hand over some software, people will do some tests that will go through different levels of review internally and externally, I believe. How they do that is a question for the Commission. We see this in many customers. Then they will have feedback. It might be on the user interfaces I alluded to before or different aspects. That will generate a patch and the patch will be supplied. Answering the second part of your question, did we supply a patch during the election, we did supply one which was to the mix- net to completely put a lid on the first vulnerability that was described by researchers at the beginning of the election. So we gave a patch for the offline machine in the architecture, the ballot box is online then we have an offline machine where the decryption happens—and there are a number of those in New South Wales—and a patch was supplied to those systems. Those systems had not actually seen use at that stage for their purpose.

Mr PAUL SCULLY: How iterative is the process between you and the Commission during that period of development so to speak in getting it ready to roll out? What is the process given you are not providing a straight off-the-shelf package although there are some common elements between other jurisdictions that you would have used here?

Mr CAMPBELL: We have a core product which we used to collect votes in elections. There is a customisation applied to that, involving things like what a ballot paper looks like, whether it is preferential, those sorts of things. So we go through that process. Say the set-up of a screen for a customer becomes quite particular— as we have seen when delivering this in multiple countries around the world—then that becomes a fairly iterative process. You will see a lot of backwards and forwards communications between both technical and non-technical people to come up with suggestions for improvement or bug fixes.

Mr PAUL SCULLY: So it is mainly the user interface that has the iterative nature and not so much the source code that sits behind it, that does the "real work" if you like?

Mr CAMPBELL: So there will be patches and those sorts of things to back-end systems when they are found. But ultimately the design of a protocol is known in advance and there will be tests to suit the customer's environment. It is a software delivery project so the customer will go through user acceptance testing and those sorts of things. They will find things that they may want different or they might find bugs and they will feed them back to us and that will be at the front-end or the back-end. I was not trying to suggest that we only look at the front-end.

Mr PAUL SCULLY: Post-election, I presume you have looked at the performance of the software for your own purposes. Have you provided any feedback on how the whole system and its development and the contract terms or anything with the Commission could be improved and, if so, are you able to give the Committee some insight into what some of those comments might have been?

Mr CAMPBELL: That is an ongoing contract, it was not just for the one election. I would have to say that some of those questions are best for the Commission, but we are in fairly constant contact. We have supplied patches and we anticipate supplying more because our project has continued to be used in other locations. It evolves, things are found, things are improved and protocols developed. If you look at the protocol used in 2015 that protocol was changed when we went to 2019. There are aspects that are the same and aspects that are different.

Mr PAUL SCULLY: And when does your contract end?

Mr CAMPBELL: The initial term was four years.

The Hon. PETER PRIMROSE: I have been part of an inquiry through the Legislative Council's Public Accountability Committee and if I can read you some evidence that we took on 12 December, 2019, and the reference is page 24 of *Hansard*. The person giving evidence is the Electoral Commissioner. He says:

> I have for two years been trying to get money for cybersecurity. The New South Wales Government has signed up, through the COAG process, to review the cybersecurity for all electoral bodies because of recent developments in foreign elections.
>
> ... we put in a bid... we got $100,000 to do a business case. We put that business case in last year; we got nothing. I am not compliant. The organisation is not compliant with the New South Wales Government's cybersecurity requirements.

Given that you are operating within this system and we have the Electoral Commissioner saying that they are not compliant, even with the Government's existing cybersecurity requirements it does make you concerned when it comes to issues of vulnerability, does it not?

Mr CAMPBELL: It is probably a question for the Commission.

The Hon. PETER PRIMROSE: No. I am asking you because you are operating in that environment where the Commissioner is saying, "We are not compliant, even with the Government's own cybersecurity promise".

Mr CAMPBELL: The Electoral Commission will have multiple electronic systems doing multiple things.

The Hon. PETER PRIMROSE: Indeed.

Mr CAMPBELL: We are but a subset of one application. I do not know to what he was referring, if he was referring to us or others. It is very hard to comment on that. If he says they are not compliant I would have to find out if there was a comment that Scytl was not compliant.

The Hon. PETER PRIMROSE: My simple point is, given that we keep hearing that everything is fine, everything is improving, that the vulnerabilities are being overcome, you are operating in a system being run where the person who heads it up is saying, "We are not compliant, even with the Government's own systems". I ask you to take on notice and respond to the question about whether or not you can give us, acting in that environment, a 100 per cent guarantee that vulnerabilities are not being caused to your system as a consequence of the Electoral Commission not being compliant with the New South Wales Government's own cybersecurity requirements.

Mr CAMPBELL: I will take that question on notice.

The CHAIR: Thank you for appearing before the Committee today. The Committee may wish to send you some additional questions in writing, the replies of which will form part of evidence and be made public. Would you be happy to provide written replies to any further questions?

Mr CAMPBELL: Yes, of course.

(The witness withdrew.)

ELECTORAL MATTERS COMMITTEE

JACI ARMSTRONG, Principal Policy Adviser, Guide Dogs Australia, sworn and examined

DIGBY HUGHES, Senior Policy and Research Officer, Homelessness NSW, affirmed and examined

SALLY AURISCH, NSW Coordinator, Blind Citizens Australia, affirmed and examined

BRUCE MAGUIRE, Lead Policy Adviser, Government Relations and Advocacy, Vision Australia, affirmed and examined

ROBINA YASMIN, Community Voices member, Multicultural Disability Advocacy Association, sworn and examined

PETER DOUKAS, Chairperson, Ethic Communities' Council of NSW, sworn and examined

The CHAIR: The Committee has received submissions from each of your organisations. Would you like your respective submissions to form a part of the formal evidence today?

Ms ARMSTRONG: Yes.

Mr DOUKAS: Yes.

Mr MAGUIRE: Yes.

The CHAIR: Has anyone got a brief opening statement?

Ms ARMSTRONG: I think we all may.

Mr MAGUIRE: I am happy to begin. Thank you for inviting us to give evidence to the Committee this afternoon. Vision Australia is the largest provider of services to people who are blind or have low vision across Australia. We support more than 25,000 clients each year, including about 8,000 in New South Wales, and we do work collaboratively with other organisations in the blindness and low vision sector so that we can best represent the needs and interests of people who are blind or have low vision. This afternoon my colleagues from Guide Dogs Australia and Blind Citizens Australia and I will each focus on one key aspect of access for people who are blind or have low vision to the New South Wales 2019 election. Because Vision Australia's digital access team had extensive involvement with the NSW Electoral Commission as the internet component of the iVote system was being tested and finalised, I will concentrate on some learnings and recommendations from that.

I have lived all my life in New South Wales. In fact, I have not moved away from Sydney. Until 2011, I was not able to vote by myself and in secret at any New South Wales State election. My family and friends and polling booth staff were always willing to complete my ballot paper for me, but election day never had the same buzz of excitement and anticipation for me as it did for them. I tried to vote below the line once but it took over an hour to convey my voting intentions to the person who was assisting me. At the end of it all, I had no way of verifying that they had completed the ballot paper how I wanted. I did not try voting below the line again. iVote was introduced in 2011 and my experience of voting in State elections changed profoundly and fundamentally. Being able, for the first time in my life, to vote independently, in secret and with the ability to verify that my voting intentions had been recorded correctly gave me a sense of liberation and dignity, and a feeling that I was now able to really participate in the vibrant democracy that Australians have fought to preserve and which we cherish as a nation.

That feeling has not diminished, as I have been able to cast an independent, secret and verifiable vote in the 2015 and 2019 elections thanks to the iVote system. Now I always vote below the line. I share my personal experience of iVote not because I am unique but because I am typical of the hundreds and thousands of people who are blind or have low vision who have been empowered by iVote to take part fully and equally in our democratic process. In our submission we drew the Committee's attention to a number of accessibility issues that our clients encountered in using iVote in the 2019 election. I will not repeat that discussion this afternoon, except to say that none of the accessibility issues were evidence that iVote was in some way fundamentally flawed or fatally broken. In our view, they could all have been prevented or resolved had Vision Australia's digital access team been engaged much earlier in the election planning cycle. An accessibility audit could then have been done and key issues resolved prior to any systematic user testing.

As we noted in our submission, the cybersecurity landscape has become more complex and treacherous since iVote was introduced in 2011, and several issues that affected the 2019 iVote experience for some of our clients were inadvertent consequences of changes to the system to incorporate more robust and up-to-date security features. With an earlier involvement from web accessibility experts the overall experience for users would have been maintained while not in any way compromising the security of the system. Security should not be used as a pretext or weapon for diminishing human rights or for excluding groups from participating fully in the democratic process. We must have confidence in our technical ingenuity to create inclusive, secure systems that do not

recreate the barriers that existed prior to iVote and which do not impose requirements which have a disproportionate negative impact on particular sections of our community.

In conclusion, I would like to emphasise that iVote is the gold standard in accessible electronic voting for people who are blind or have low vision and fulfils two of the objectives of the New South Wales Disability Inclusion Act, which is currently under review. iVote is an outstanding example of how systems and processes can be made accessible and, by empowering people to participate in our democracy, it is helping to create more liveable communities. We entreat the Committee to avoid turning the iVote experience into a fleeting Camelot moment, but rather to ensure that it endures as a cornerstone of the vision of inclusion and equity that our State of New South Wales is bringing into being.

The CHAIR: Thank you. Who would like to go next?

Ms ARMSTRONG: I suppose I will, if we keep it with the blindness sector and then move on to other areas. I appear on behalf of Guide Dogs Australia and thank you for the opportunity to speak with you today. It is a privilege to share with you the views and interests of our stakeholders and the broader blindness sector along with my colleagues Sally Aurisch from Blind Citizens Australia and Bruce Maguire from Vision Australia. We have no doubt that the Committee shares our opinion that all citizens in New South Wales have an expectation and right that they be able to exercise a secure and independent vote through making an informed decision on who their chosen representatives are and documenting this decision by completing a secret, independent ballot.

This right and expectation of a secret, independent voting process is enshrined in the Electoral Act 2017, where one of the objects states that the Act's intention is to promote and maintain an electoral system characterised by accessibility, integrity and fairness. Equally, as Mr Maguire has mentioned, it is timely that this Committee has the opportunity to recommend continued and hopefully improved commitments to an inclusive and accessible election process, because the New South Wales Disability Inclusion Act is currently under review. In New South Wales there are currently over 12,000 people who are blind and over 105,000 people who have low vision. This number constitutes a significant number of constituents and it continues to increase with our ageing population.

My colleagues have and will speak of the importance of retaining the iVote system as a central tool of accessibility and inclusion of the electoral process. iVote use continues to grow, which demonstrates the necessity of ensuring the accessibility of the system through appropriate resourcing, early user testing and promotion of use to people who are blind or have low vision and other members of the community who benefit from the availability to cast an independent secret vote online. I personally have greatly valued the ability to use the iVote system since its introduction in 2011, as has my sister, who has cerebral palsy and finds it extremely difficult to physically access many polling booths or to write on a ballot paper and must rely on the assistance of others to complete a paper ballot, therefore removing her independence and the secrecy of her vote.

In addition to the inarguable necessity of the act of casting one's ballot, one must be able to do so in an independent and secret manner. Accessibility inclusion within the electoral process extends beyond the election day itself. In order to exercise an informed vote, the accessibility of policy statements, political advertising and how-to-vote cards is often overlooked. We urge all Committee members here today to show leadership in ensuring your websites, policy documents and campaign materials are accessible for all constituents. Mr Maguire, Ms Aurisch and I represent our respective organisations on the NSW Electoral Commission's Equal Access to Democracy Disability Reference Group. We welcome the opportunity to continue to work with the Electoral Commission to improve inclusion and accessibility of the New South Wales electoral process, and we trust this Committee agrees with the importance of ensuring retention of the iVote system and improving accessibility and inclusion for all constituents. Thank you.

Ms AURISCH: My name is Sally and I am here on behalf of Blind Citizens Australia. We are the peak representative body for people who are blind or vision-impaired across Australia. Like Mr Maguire, my experience with voting has been quite similar. In 2007 I was able to cast my vote in my first ever State election. I attended a polling booth well prepared to cast my vote below the line and was met with distinct hostility and disgust at this request. The process was tedious and time-consuming and I have no way of knowing whether my vote was cast in the way I intended it to be. Come 2011, with the introduction of the iVote system, I was no longer required to rely on family, friends or polling booth staff. I was able to take the time I needed to ensure that my vote was cast in the way I intended and I was able to do so without needing to disclose my voting preferences to anyone. This is an experience that has been an experience for many people for decades and yet was a first for me and thousands like me, and it is something that I have appreciated at every election since.

My colleagues today have talked about the technical aspects of the iVote system and the accessibility of the voting process as a whole. I would like to focus my attention on the other issue we raised in our submission to the Committee, which was the education that comes with the iVote system and those who use it and those who are employed to administer it. Although iVote is the gold standard in providing a secret, independent and verifiable

vote, with each election come necessary changes that must be made. These changes change the way in which the people who access iVote use it and can cause concerns and complexities in its use. It is vital that we receive the information around the changes that have been made to iVote in a timely manner so that we can share those with our members and ensure that they have everything they need to access the system so that they can cast their secret, informed and verifiable vote.

Likewise, during the 2019 election we received several pieces of feedback that show that some of our members, when calling to use the iVote telephone assisted voting service, were met with less than ideal responses when they disclosed that their reason for using the service was because of their blindness or vision impairment. These responses included comments like "Oh, I'm sorry" and being transferred to the National Relay Service, which is a service that is used for interpretation and translation for people who are hearing-impaired—not necessary for someone who is blind or vision-impaired. These instances show us that there is a need to provide disability competence training for those people who are placed in the role of taking these calls to ensure that the experience is a positive one for all who use the system. The Australian Electoral Commission recently produced a training video for their polling booth staff that showed the types of services they were expected to provide to people with disability and people who are frail, elderly or from diverse backgrounds.

At the request of the Australian Electoral Commission's disability reference group, this video was reproduced in a second version to show the way that one could request assistance when attending a polling booth and the types of assistance that they could expect to receive. This video shows the great work done by the Australian Electoral Commission and is something that the NSW Electoral Commission could look at to follow in those footsteps to ensure that they are providing information that is required for those who are going to access the iVote system. In conclusion, I would like to reiterate the views of Blind Citizens Australia, our members and the broader blindness community in that iVote is by far the gold standard in casting a secret, independent and verifiable vote and that we, along with my colleagues here today, remain committed to working with the NSW Electoral Commission's Equal Access to Democracy Disability Reference Group to ensure the continued access to iVote for elections to come. Thank you.

Ms YASMIN: I am the speaker of Community Voices project of MDAA, which is the Multicultural Disability Advocacy Association of New South Wales. My son has cerebral palsy and I have also disability. I am also the nominee of New South Wales for National Ethnic Disability Alliance [NEDA]. I have been also a consumer of this organisation since 22 years, due to my son and other issues. Now I am in the management committee of this organisation as the vice chairperson. I have been trained and I have got training before I was not aware of this election system here. When I came in 1996, in the beginning, maybe I was educated but still it was hard to understand. But in the back country, the whole system of the election is quite different. When I came attending different forums in the MDAA and in my community, some people were reluctant to cast the vote. I have also worked with elderly people. Some people are in isolation and they do not have any help to cast the vote. They say, "I'll pay $55. That's fine."

The other thing, for example—my son. When I have to cast the vote in 2019, even I cannot walk the stairs. I was driving with my other son to go to the polling booth where I can cast the vote easily. But some in the schools, there was a long walking distance. Then I was not able, then I went to Glen Alpine. That place was accessible. Then my son has anxiety and saying, "I will not cast the vote." Because I am from educated family, so we do not pressurise the child—"You have to vote this or this." We can explain. But I am honestly telling you, the members who just stand for the election—they do not introduce properly. The people with disability I have seen just—"I do not know from Liberal, who is that person from Labor". The few people who are prominent who have been coming in the election continuously, they know and they are being known to us. But there are 600 consumers in this organisation and we have some forums. But the people, they are sometimes "For what? We don't know what's going on."

Even today there was a client; she had a vision impair. She said, "I liked iVoting, but the technology should be accessible for us." Sometimes you are ringing and the password, these other things—we have a difficulty. So I think the State election—I am very happy that you are taking initiative to listen to us, the people from non-English-speaking background and cultural linguistic background and we are given the rights to understand. We have been empowered to come to attend this session and we can explain what is going on, how we feel. As a community, in that community, I see some women are in domestic violence because I also help them.

They say, "We are forced to vote. If you don't give them a vote," you know, "they are a little bit abusive." I think there should be the awareness forum for the women in domestic violence, the children who are in abuse— I know that children who are under 18 cannot cast their vote—but we should give them awareness that, "You have a right to exercise your vote in this country." We are living in this country, we should respect the rules and laws. As a citizen we should cast a vote unless there is a very serious reason. So we should empower the people with

disability and they should fully understand how to participate in the vote. Some people who are in motorised wheelchairs, they also—Ivan Kwong, he is also in the different disability organisations, he said, "It is very hard for me to go to the booth and I need some assistance," but the workers are sitting, they are very busy because there are a lot of people coming to cast their vote.

So I think the booth should be so accessible that I can cast a vote. I think these things are, if anything, especially the security things and other things. The people who are sending the postal votes, what is the safety and the security they have to cast their vote? The people who have vision impairments or the blind, if someone is helping them to fill the form, who knows that they have exercised their rights? He can fill on their behalf to anyone. So there should be a very clear understanding of the person who is standing for the election with regard to their character and everything, so we should know. We are electing a person who is a very important person in this society. We have to develop the capacity building of the society and the community engagement. Thank you so much.

Mr DOUKAS: Thank you, Mr Chair, the Committee and my colleagues. My organisation has been around since 1975. It is the peak body representing multicultural communities in New South Wales. Roughly speaking we acknowledge that New South Wales is one-quarter constituted of people born outside of Australia and the other-quarter is people with at least one parent born outside of Australia. That creates opportunities and problems. One problem that we saw from our community members—we have about 350 or so community organisation members—is the influx of concerned members of our multicultural communities who are getting fines, as my colleague said, after every election. In the lead-up to the 2019 double election year, the Australian Electoral Commission [AEC] and the NSW Electoral Commission approached us to work on a project on engaging our most at-risk community members, or most linguistically at-risk community members and communities.

In the Australian electoral process many of our communities, particularly the new and arrived migrant communities, come from countries where democracy is not a right and often it comes with a fee. Often there is a cynicism attached to government. The Commission rightly approached us to engage our members in a way that was accessible and was not imposing. The program we came up with was called Vote Talk, an innovative initiative designed to engage with communities in a way that they would want to react and want to participate. The idea was to interact on radio, particularly on community radio, where those people that were most at risk of not participating could be directly engaged. The outcome that we have come up with or that we engaged with in both New South Wales and with the Federal Electoral Commission was to engage through community radio in two forms: either live, on-air radio conversations using ethnic and multicultural radio, or cafe conversations mimicking the equivalent of podcasts.

The most at-risk language groups were Arabic, Cantonese, Mandarin, Spanish, Hindi, Urdu, Indigenous language groups and we added a youth program for those members of multicultural communities with English just turning 18 and just beginning to engage in the political program. Our multicultural advisers, the bilingual facilitators, were hired by the Ethnic Communities' Council of NSW based on their oral communication skills, cultural expertise, communication skills, literacy and organisations skills in their own language and in their own community. They were given very strict guidelines, particularly on the apolitical nature of the AEC and the NSW Electoral Commission and they were made to sign disclaimers as part of their employment that they were showing people how to vote, not who to vote for.

We believe the engagement was very successful and some of the key messages that we ensured were delivered as part of the program in those various language groups were: an encouragement of Australian citizens to register to vote; to ensure that they voted properly and to make sure that their vote was counted; the necessity of voting at State, Federal and local council elections and the differentiation between those different elections and what they mean in the Australian context; the rights associated with having your say in an Australian election; and what it means to not do so, with the notation that it was not just a $55 fine but an absence of democracy and a misrepresentation of our communities, most of which are the most vulnerable communities in our democratic processes. The outcome of the program we think was very good, very successful. We were also reinforced by both the New South Wales and the Federal Electoral Commissions.

Feedback from our clients and from our trainers was 98 per cent positive. In your packs, what you would have in your Committee packs, we have examples of the kind of feedback that we received from clients and from the communities. Some of the reports that have come to me are that, "Finally, we feel engaged." These are the words of our community members who believed that up until now they could not properly explain the Australian political system without falling into partisan politics. So the recommendations that we have made to this Committee and that we have made also to the Federal Electoral Commission is that programs such as this could be furthered in upcoming elections. I do not believe—and my organisation also reinforces this in its further submissions both at a Federal level and at a State level—that this is a one-off program.

I think this is an issue that will be a constant in Australian democracy while we have large communities with a non-English-speaking base. I believe this is where we should be investing money, not necessarily in the electoral process, but in our elections themselves. The Ethnic Communities' Council of NSW is more than happy to continue working on this basis. The Vote Talk program we do not expect to change. I think it was successful enough for us to simply copy it in the next election, but our recommendation and our offer is that we are open to it continuing. Thank you for the opportunity to present to the Committee.

The CHAIR: Thank you. Committee, any questions? Sorry.

Mr HUGHES: That's okay. Homelessness often gets forgotten. Thank you for the offer to come and speak to the Committee today. I would like to start by acknowledging the traditional owners of the land on which we are meeting, the Eora people. This is, always has been and always will be Aboriginal land. Some 28 per cent of people who front up at homeless services in New South Wales are Aboriginal. I think it is just always worthwhile remembering that whenever we talk about this as a figure and information. Between 2011-16 the number of homeless people in New South Wales increased from 27,000 to 37,000. We are actually talking about a fairly large number of people out there, an increasing number of people, who are homeless. We believe that the NSW Electoral Commission can—since our submission has gone in they have actually approached us and we are having a meeting with them in a couple of weeks—actually do a lot more to ensure access for people who are homeless to vote.

As I put in our submission, being homeless is being without. You have no home, you have no choice, you have to go to a service, you have to do a whole lot of things and we as a society often deny people who are homeless the right to vote as well. It does not have to be that way. Attached to our submission is some very good information from the Victorian Electoral Commission. I have always thought in life that you do not need to reinvent the wheel. Often just go and find somewhere else that is doing something really good and copy it and claim it as your own work. I think that is an opportunity there for the NSW Electoral Commission to talk to their colleagues in Victoria and to use some of that information to make it accessible and out there. We see our role at Homelessness NSW as to help to disseminate that information across the sector. Last year homeless services last year saw just under 72,000 clients, which is about 16,000 more than they are funded to see.

So they are pretty well flat chat 24/7. So any information that goes out to them has to be made easily digestible so the workers and staff can understand it and work with the clients. The last part of our submission— that we put in the written submission—is about the issue of voter identification. We know that many rough sleepers do not have identification at times in their lives. In New South Wales, if we go down the road of ensuring that everybody has to have ID when they go to vote, we will be excluding some people from being able to vote. Rough sleepers are one. The other group, and I had a conversation recently with a number of our services working in the domestic violence area— on many occasions women have to escape without identity and unfortunately it makes perfect sense. The perpetrator controls their lives and he controls their ID. They know if they try to grab their ID as they are trying to get out the door, they will not get out the door. I cannot urge this Committee strongly enough not to recommend to go down the road of voter identification.

Mr NATHANIEL SMITH: Thank you for your opening statements. It was very valuable and we have learnt so much from your submissions. My question is mainly to the vision impaired groups here today. It is great you have had that opportunity since 2011 to cast your vote and use the iVote system. Some witnesses have not spoken so favourably about the iVote system due to manipulation, foreign influences and things like that. If changes were made to the iVote system to create better security safeguards, how long would you need to educate your groups? You spoke earlier Ms Aurisch about a length of time before the election. How long would you need?

Ms AURISCH: A common factor of people who are blind or vision impaired is that they are over 65 years of age. This coincides with the fact that a lot of those people do not have regular or any access to the Internet. That means we have to use different ways of disseminating information which can take additional amounts of time. That is relevant to those people as they would use the iVote telephone assisted and keypad voting services. So several weeks would be a good time frame for us to receive the information. But we also need additional time to test those increased security features. Often when security increases, accessibility decreases. There is definitely a way to make sure that both can exist smoothly in a well-developed program but that does take time. That is something that Mr Maguire can speak to, Vision Australia's ability to audit and test those security features as they are implemented.

Mr MAGUIRE: If I could take up the offer of speaking about that. Our digital access team obviously needs as much time as they can have. The next election is in 2023. So about now would be a good time to start a discussion around what might need to change. Obviously that may not be feasible because all of the changes may not have been finalised. But the sooner the better because the more accessibility testing that can be done prior to

systematic user testing, the more issues that can be resolved before users get to it and the better the experience will be for users and the more they can focus on the usability issues rather than the technical accessibility issues.

Obviously the extent of changes to security will also have an impact. In the 2019 election, there was quite a significant change in that for the first time QR codes were used as a verification method and a second device. So there are implications on all of those things, for accessibility and usability. But to reiterate the point I made during my opening statement, we do believe there is no reason why a system that meets robust standards of security cannot also be fully accessible and usable.

Mr NATHANIEL SMITH: Okay, thank you.

Mr PAUL SCULLY: Mr Hughes has already commented on this and I appreciate those comments but those who are from the multicultural communities and the vision impaired, do you have any views on whether an ID requirement would help or hinder accessibility for most of the people that you represent?

Mr DOUKAS: From the multicultural perspective, I think it would help. There are concerns in the community that people are voting for other people. They are voting twice. I have exactly the same name as my grandfather, for example, and that is probably endemic throughout the community. From a community perspective, it would make the role that we are trying to achieve easier. It would make our job easier.

Mr PAUL SCULLY: There is not a risk that people would not have suitable identification?

Mr DOUKAS: From our perspective, in a cost benefit analysis that risk would be overcome by the benefits of having ID.

Ms YASMIN: I think that the people who are not permanent in Australia do not have any ID. Maybe they migrated a long time before but still, for example, Medicare, because they go for medical services, to the treating doctors, so they have some sort of ID. So any ID which is relevant, which is up-to-date, that can be helpful. In the community, we should overcome cultural barriers so communities can, as Mr Doukas said, arrange some form or some sort of community awareness. So before the election we should start projects for people who have been here for six months. The Independent Living Centre [ILC] runs programs to enable people to have a better independent life, showing new Australian citizens how to cast their vote, how to apply for a New South Wales driving licence. They have many projects informing people what rights and what benefits they have.

Because this is a democratic country, everyone living here—maybe there is a communication problem as there are a lot of different languages—but we should start informing communities on their doorsteps that they should actively involve themselves in the election process. We should make it easier for elected members participating in the election to give an introduction and details to people so they can understand better by themselves. We should give them empowerment.

Ms ARMSTRONG: I think it is important to note that in registering to use iVote, you already need to provide identification. But also if we are talking about identification at a polling booth, people who are blind or vision impaired often do not have driver's licences or sometimes even passports. So it would be dependent on the form of that ID and again community awareness and education beforehand.

Mr PAUL SCULLY: Which you would expect would be slightly exacerbated in the problems as the population ages and more people hand in voluntarily—or not—their licence and the like.

Ms ARMSTRONG: But it is interesting to note that iVote actually requires you provide significant examples of identification before you can register to use the system.

Mr PAUL SCULLY: Anyone else on that?

Mr MAGUIRE: The important thing about ID is that whatever is required, it needs to be clearly explained. There was some confusion in the 2019 election and those using iVote as to whether it was optional or mandatory to provide a Medicare number and the form that Medicare card number should take, that is whether it should include the single digit on the left or not. As it turns out, it was purely optional. There would need to be very clear instructions and a long lead time to promote awareness of that in our community.

Mr PAUL SCULLY: Some people who have presented to the Committee have suggested that the inclusion of party logos on ballot papers may be of assistance to people in helping cast a formal vote, or people having confidence that they are actually voting for the party that they intended to vote for. Does anyone have any views on that?

Ms ARMSTRONG: Do you mean next to a candidate's name?

Mr PAUL SCULLY: Yes.

Ms ARMSTRONG: Again, I suppose, for our cohort, if it was done in an accessible format it may be useful, but it is how you would go about doing that. Certainly for ease of identification, if it is accessible, the more information, the better.

Mr MAGUIRE: There is no reason why logos could not be included in electronic ballot papers in a way that did not interfere with accessibility or usability if it was going to benefit other groups.

Ms AURISCH: I would second both Ms Armstrong and Mr Maguire's feedback.

Mr DOUKAS: From our perspective, it would make the process easier.

Mr CHRISTOPHER GULAPTIS: Earlier today we heard testimonies from people who were suggesting that the iVote system was vulnerable and we need to look at it very carefully and consider how to use it in the future. Listening to the way that you use it and those that are most vulnerable in our community use it, I am really interested to find out: Did you find it simple to use?

Ms AURISCH: Yes, far more simple than casting a vote on paper. Especially if you choose to vote below the line, it really is the only option.

Mr MAGUIRE: One of the great benefits of iVote is that it has three options. You do not have to use the internet to vote, although many people and an increasing number of people are using the internet option. But you can also vote using the automated telephone system. You use your keypad on your landline or mobile phone. The third option is a human-assisted call centre. What we find is that particularly older people who have newly acquired vision loss and who may not be comfortable using the internet yet, and possibly even not comfortable using the automated telephone system, find that although it compromises secrecy and independence, for them being able to convey their voting intentions to a human is comforting. Having that suite of options, we think, is one of the benefits of iVote that adds to its simplicity for almost everyone.

Mr CHRISTOPHER GULAPTIS: I hear what you are saying. Because we heard so many concerns about the integrity of the system I am just wondering: Do you have concerns with the integrity of the iVote system or are those concerns overshadowed by the fact that it is such an inclusive system and it has given you an opportunity to do something that you were not able to do before?

Mr MAGUIRE: We are obviously not security experts so we would not venture into that domain. But certainly from my perspective and from the perspective of all of the people who are blind or have low vision that I speak with, there is no more concern about the integrity of using iVote than there is about, say, doing banking online or doing shopping online, where you are giving your credit card information and possibly less. I am sure the security experts would be quick to point out technical differences between, say, banking online and voting online. But from our perspective that sense of empowerment of being able to participate in that democratic process far outweighs any concerns that the vast majority of people would have about vulnerabilities in the system.

Ms AURISCH: To add to Mr Maguire's feedback, when we cast a vote with the assistance of another person, if we cannot physically read what that person has written we are just as vulnerable to that manipulation as we are if it takes place online.

The Hon. PETER PRIMROSE: I have two questions to all of you. The number of people using postal voting is declining. I am wondering if you could comment on whether, if postal voting ceased altogether at State elections—how that may affect the people that you deal with?

Ms ARMSTRONG: For our stakeholders it would not have a significant impact at all because to exercise a postal vote most of us are reliant on someone else completing the ballot. We are reliant, really, on the online iVote system and to a degree also the telephone system as alternates to voting in person, where, again, your secrecy and independence is challenged.

Mr MAGUIRE: There are certainly people who are blind or have low vision who have used postal voting in the past, before iVote—I was one of them—because there are often significant challenges in using the facilities at a physical polling booth, beginning with how to get there. If postal voting were removed and the iVote system were diminished, I think that would have a substantial impact on many people who are blind or have low vision. If postal voting were removed while retaining all of the elements of the iVote system, I do not think there would be a substantial impact on our community.

Mr DOUKAS: From a multicultural perspective, the use of postal voting is most prevalent in the more established communities—the '50s and '60s migrants—and it would affect, I believe, their ability to exercise their vote. I think most of the people that use it are people who are migrants themselves and, while ageing, have grown into a disability as well. They are probably used to now, and have been for a while, the postal voting system.

The Hon. PETER PRIMROSE: My other question that has been alluded to already, but has also been mentioned in a number of submissions we have had, relates to concerns about candidate information not being available to those who use iVote. When we have had these inquiries before that has been raised as well. People have also expressed concern that there is no requirement to make candidate information accessible to people with a disability or to voters in declared institutions. I was wondering if I could again ask anyone who would like to, to comment on that?

Ms ARMSTRONG: I would actually argue that there is requirement under, again, the accessibility of the Electoral Act and also under the Disability Discrimination Act. There is a requirement that materials are accessible to all. However, should individual political parties decide it is not an important investment because of a perceived small number of constituents impacted, then that is a political decision rather than a human rights decision. Arguably, I think if you want people to exercise an informed vote, you need to provide information in an accessible format to everybody.

The Hon. PETER PRIMROSE: I specifically would ask for your comment on iVote. For example, it has been suggested in the past that it would be easy enough to have access to an individual party's how-to-vote and candidate information on the iVote platform. It would be available and should be available to people, and it is not now. Is that the sort of thing we are talking about?

Ms ARMSTRONG: I think it is the appropriate platform to provide the information, but I think it is broader than that. I think it is on individual parties' websites. It is on the information that they distribute through how-to-vote cards in your letterboxes. It is all those types of things. Certainly the iVote platform and providing the information there in accessible formats would be a beneficial first step.

Mr MAGUIRE: One of the things that we recommended in our submission was an amendment to the Electoral Act allowing how-to-vote cards to be provided in formats other than print, because our understanding is that the Act is quite prescriptive in the format of how-to-vote cards. They do not lend themselves to being translated from a hard copy print format to an electronic and hence potentially accessible format.

Ms ARMSTRONG: However, they are also usually uploaded on individual websites and potentially the format in which they are uploaded on that website can make them accessible to screen-reading software or not.

The Hon. PETER PRIMROSE: Any other comments?

Mr DOUKAS: My experience is that the investment that is being made by political parties in ethnic media is already evidence of an investment in those communities that are affected most. I think it is weaving its way into the political system already through political investment.

The Hon. BEN FRANKLIN: Thank you all for being here and for the wonderful work that you do in your communities. There are three issues that I want to raise, some of which will be of more relevance to some than others. The first is on iVote and obviously this is predominantly for those who are working in the vision-impaired area. Thank you for your full-throated endorsement of the importance of iVote and what it represents. We have heard your message very clearly and it has not been lost. However, my question is—we have obviously had some potential security concerns expressed today—are there any other concerns that any of you have about the front-end of iVote or the accessibility that you want to raise that have not already been raised today? Because it is so clear and apparent how important it is for many of you on the panel. If not, that is fine by the way. I am giving you the opportunity.

Mr MAGUIRE: Thank you, Mr Franklin. Yes, I think we have raised all of the issues that are of concern to us. I think the paramount recommendation is that there be early and frequent dialogue between our sector and the NSW Electoral Commission, as there indeed has been. But as time goes on I think there will be an increasing need for greater involvement as the systems become more complex and as technology develops and technology itself becomes more complicated.

Ms ARMSTRONG: I think we all have an expectation that the iVote system or the front-end will change in anticipation of the upcoming elections, so again it is about that early consultation in design and implementation.

The Hon. BEN FRANKLIN: So the key is consultation.

Ms ARMSTRONG: Absolutely.

The Hon. BEN FRANKLIN: The second issue I would like to talk about is polling booths and that is relevant potentially to all of you. If there are any specific issues and/or concerns about access to polling booths or experiences at polling booths that you or any of those people who you know—that your organisations represent—

have had that you would like to raise with us when we consider what our recommendations will be out of this inquiry. In polling booths obviously on the day, where they could be pre-poll, or it could be actually turning up to vote on the day. If there are any issues any of you would like to raise.

Ms ARMSTRONG: I think as Ms Aurisch highlighted a lot of it comes down to education of staff, but also it is accessibility—as far as just how would you travel to a venue? What is the cost of that? How long is that going to take? Is the venue itself accessible, be it with appropriate hearing loops or wheelchair accessibility? But, ultimately, apart from the physical accessibility, your experience often comes down to the experience and education of the staff that are present.

Mr MAGUIRE: The experience that we have had where, for example, accessible voting terminals have been installed at polling booths rather than people being able to vote from other locations such as their own home, as we can do with iVote, has shown that there has been very low uptake and satisfaction with those systems. That suggests, certainly to us, a number of things. One of the things it suggests is that there are still significant issues for many people who are blind or have low vision in actually getting to and navigating around polling booths, particularly in regional areas where there can often be long distances between where people live and where the polling booths are. Even in metropolitan areas just going to a polling booth—obviously most people who are blind or have low vision do not drive. Many do not have ready access to assistance, so people are reliant on taxis to get to and from polling booths with all of the vagaries of that.

Once you are at a polling booth you have to know what to do, you have to find someone who can assist you and hope that they have been educated in how to do that. That is not to downplay the inclusive nature of the experience at polling booths. I particularly remember when my kids were younger it was great to be able to go into the polling booth with them so we could experience as a family that participation in the election process. But, by the same token, we should not ignore the significant challenges that attending polling booths can present for many people.

Ms AURISCH: I understand that there is a checklist that is often used to determine the suitability of a venue to be a pre-polling or polling station. However, due to the sometimes short notice or the short time span for the lease, that a lot of places become unsuitable simply because they are only needed for a couple of weeks. That seriously diminishes the availability or the number of venues that are available for use. I think consideration needs to be given to that checklist and making sure that the objectives of it do actually meet the accessibility needs. Also looking at different options for where polling booths could be held. Instead of looking for vacant buildings, maybe existing facilities that could be for dual purpose for a couple of weeks. That might increase the accessibility for all people to be able to utilise them.

Mr DOUKAS: One outcome that we found was labelling of polling booths themselves in different languages. That was feedback that we found necessary, particularly for recently arrived—

The Hon. BEN FRANKLIN: Does that happen?

Mr DOUKAS: I am not sure.

The Hon. BEN FRANKLIN: I don't think so. I mean, I haven't seen it.

Mr PAUL SCULLY: You get the big white sign and it says "polling place" and that's it.

Mr DOUKAS: I do not think it is prevented, though. I am not sure if the AEC has rules about it but I understand there is no prohibition of a polling booth being differently labelled. But some feedback we have got, particularly from newly arrived communities and recently made Australians is that they did not know what all this commotion was around schools on a weekend on election day.

Mr PAUL SCULLY: It might stop parties impersonating AEC sites.

The Hon. BEN FRANKLIN: There could be. If you hit some trigger, if 10 per cent or 15 per cent of the population speaks a particular language, then they are required in that electorate to have that. That is very interesting, thank you.

Mr HUGHES: A large number of rough sleepers do have a disability or impairment. I will make a brief comment. We can already work out today when the next State election is going to be. It is that last Saturday in March come 2023. Unlike the Australian Electoral Commission, which does not know when the elections are, the NSW Electoral Commission does know. Planning ahead is vital to start finding venues now that are accessible. In the disability world, the Discrimination Act was 1992 and the Access to Premises Standard was 2010. So we are well down the road of actually trying to make society more accessible. The fact that polling booths are often not accessible or only accessible with assistance is actually a damning indictment on our society's capacity to make our society fully accessible for all members of the community.

The Hon. BEN FRANKLIN: Yes, I think the Electoral Commission is required to have a certain number that are accessible and to put out educational flyers and so on that say which ones are and so on, but your contention I suspect is that that is not enough. Every one of them should have equal accessibility.

Mr HUGHES: Exactly right. Yes.

The Hon. BEN FRANKLIN: I would like to talk about two specific issues two of you have raised. The first is with you, Mr Doukas, just about the Vote Talks program, which I think is an excellent program. So just backing up a little, that was utilised for the last election?

Mr DOUKAS: Both State and Federal elections, yes.

The Hon. BEN FRANKLIN: Was that funded by the State Government or the Federal Government?

Mr DOUKAS: I think it was jointly funded by the State and Federal Electoral Commissions.

The Hon. BEN FRANKLIN: And that funding has now ceased?

Mr DOUKAS: I think it was a program for the elections, so I think it ceased because the elections are over. I suspect there will be—we hope there will be a new program for the upcoming elections, but we do not have any information about that.

The Hon. BEN FRANKLIN: That is certainly something that I suspect we would be united in recommending. Can you provide us any further information that we do not have about the program on notice?

Mr DOUKAS: Certainly.

The Hon. BEN FRANKLIN: It sounds really good and exactly the sort of thing that should be emulated. I would have thought, rather than stopping and starting, it could potentially ramp down between elections but still have a presence, still continue. Is that the sort of information that you were talking about, Ms Yasmin, about continually being available?

Ms YASMIN: Exactly.

Mr DOUKAS: Yes. It is our intention. We have got bilingual educators who we retain for that purpose. We have got the capacity to do it and it is our hope that it would continue.

The Hon. BEN FRANKLIN: Any more information you could provide us about the program would be great.

Ms YASMIN: One thing I am suspicious that the people who are in the aged care and people who are sick in the hospital—how would they cast the vote? What is the system, because who helps them? Some people, they are really isolated in the aged care. Some people, they are really isolated in the home. So I am wondering who they are being—

The Hon. BEN FRANKLIN: There is a declared institution facility. The Electoral Commission goes around to some institutions and assists residents to cast votes. But that is not all of them, and so you are quite right to identify that. For those institutions that do not have that facility, it is a real challenge—particularly some of those, perhaps, who do not speak English as a first language and so on. The other issue I was hoping to raise is with you, Mr Hughes, about this excellent information from the Victorian Electoral Commission. You may not know the answer to this. Do you know if this brochure was promoted within—

Mr HUGHES: Yes, it was.

The Hon. BEN FRANKLIN: Can you give us any further information about how they promoted it and what they did? We are happy to ask the Victorian Electoral Commission, obviously, as well.

Mr HUGHES: No, that is okay. Among the things they did was they spoke to our counterpart down in Victoria, the Council to Homeless Persons Victoria [CHP], who have members around the State, and they used them as the sort of point body to get information off to the services, who can then work with the clients.

The Hon. BEN FRANKLIN: To me, this seems like an excellent resource and, as you say, could well be replicated quite easily.

Mr HUGHES: Global change "Victoria" for "New South Wales".

The Hon. BEN FRANKLIN: Yes. Other than just a pure replication and, I presume, working with your body and other appropriate homelessness bodies to promote it, what else do you think can be done in this space to ensure the enfranchisement of homeless people in a sensitive and appropriate way?

Mr HUGHES: Having voting available. One of the things the AEC did was they actually had some voting information available at some of the larger places in Sydney—the Matthew Talbot Hostel, places like that. On the far North Coast they went to some of the large services up there as well. So they actually go out and have direct voting available prior to polling day in venues.

The Hon. BEN FRANKLIN: We have mobile polling booths, as I said, going into declared institutions—into retirement villages and so on. So there is no reason why they could not go to specific areas.

Mr HUGHES: Correct, yes.

The Hon. BEN FRANKLIN: Is there anything else you would like to raise in terms of the impediments to homeless people voting and what we can recommend as a Committee to encourage and to increase the participation?

Mr HUGHES: Not really; just to say that we are available to start work with the Electoral Commission to actually work through the issues. Some of them will be very simple and easy; some of them will be more complicated. The vast majority of homelessness is not visible. That is the other issue out there. The rough sleeper content of homelessness is about 7 per cent, so 93 per cent of people are not rough sleeping.

The Hon. BEN FRANKLIN: So they are couch surfing and sleeping in cars and those sorts of things?

Mr HUGHES: Couch surfing, in cars—a whole range of other issues. So how to actually find those people and get them involved—some of them may be on the electoral role, but just not staying in that address at the moment.

The CHAIR: Thank you for appearing before the Committee today. The Committee may wish to send you some additional questions in writing, the replies to which will form part of the evidence that will be made public. Would you be happy to provide written replies to any further questions?

Ms ARMSTRONG: Yes.

Mr HUGHES: Yes.

Ms AURISCH: Yes.

Mr MAGUIRE: Yes.

Ms YASMIN: Yes.

Mr DOUKAS: Yes.

The CHAIR: Thank you.

(The witnesses withdrew.)

(Short adjournment)

MARTIN MUSGRAVE, Executive Director, Commercial and Economic Planning Association Inc., affirmed and examined

MATTHEW DANIEL, President, Commercial and Economic Planning Association Inc., sworn and examined

The CHAIR: Thank you for appearing today. I have to make a declaration, I know Mr Daniel as a local member of the Liberal Party in the Sutherland shire.

The Hon. BEN FRANKLIN: I should probably declare that I know Mr Musgrave as a local member of the National Party in the Ballina shire.

Mr PAUL SCULLY: I am out numbered in this room right now, aren't I, really.

Mr NATHANIEL SMITH: I also declare that I know Mr Daniel.

The CHAIR: Thank you for appearing before the Joint Standing Committee on Electoral Matters today representing the Commercial and Economic Planning Association to give evidence today. Can you please confirm that you have been issued the information about standing orders in relation to examination of witnesses?

Mr DANIEL: Yes.

Mr MUSGRAVE: Yes.

The CHAIR: Do you have any questions about that information?

Mr DANIEL: No.

Mr MUSGRAVE: No.

The CHAIR: Would either of you like to make a short opening statement before commencement of questions?

Mr DANIEL: Mr Chair and Members, could I apologise for only just turning up. I did plan to be here an hour before but there was a really bad accident on the Eastern Distributor that prevented me from being here. My apologies.

The CHAIR: Noted.

Mr MUSGRAVE: I would like to make an opening statement. The Commercial and Economic Planning Association is a fairly new organisation that represents smaller developers and our membership role is made up of more than 50 per cent developers, unlike the UBAA and the Property Council where they have got members who are also from planning. Our membership is more than 50 per cent people who aren't them, I guess is the best a way to put it. We are fairly ambivalent about whether developers should or should not be able to donate money to political parties, this is not what we are here to talk about. Our organisation is affected in a different way. As our membership is made up of more than 50 per cent developers and developers are prohibited donors we cannot raise a levy to then undertake third party campaigns or third party activities that would then highlight problems that our members have. We are able to sequester some funds that have been made through membership or other activities but we cannot levy a specific fund or raise a specific levy solely for the purposes of campaign activities. When developers feel attacked by all sides they can.

Not only can we not do anything for them we also cannot do anything against them. We cannot be your friend and we cannot be your enemy. This limits our legitimate ability to get the message out about what we think about Government and Opposition policies. It means we can be ignored or attacked because we cannot defend ourselves. Without being able to undertake campaign activities we have no influence over policy. To take an extreme dystopian possible example: One day all political parties might say that developers should be flayed alive. Any other industry association or any other industry would be able to raise a fighting fund. Even the coal industry and the gas industry would be able to raise a fighting fund and say, "Well, our workers should not be flayed alive". But our guys, we would not be able to raise a fighting fund to work through the media to then try to change the public's mind to influence policy change.

What ends up happening is our efforts to point out problems inside the Department of Planning, with councils and with the administration of the planning system end up falling on deaf ears. They fall on deaf ears because there are no consequences to ignoring us. However, there are consequences to ignoring us. Were we able to raise money to undertake campaigns we would have been pointing out that affordable housing has been rejected in disadvantaged locations on spurious grounds because the Department does not want bad relationships with councils. We point out that the Greater Sydney Commission's push for inclusion rezoning is not going to produce nearly as many homes as it wants but will raise prices of new homes for first home buyers by about $50,000.

We point out that the Department's monitoring system is being run by the very people it monitors and we have evidence from members that it is being routinely changed to make it look better for those who are being monitored. We would be pointing out that spot rezoning is a necessary part of land use planning. We are not able to raise a levy specifically for campaigns and we lack the funds from membership to do it as we run a very lean organisation. It is basically just Matt and I in the leadership roles. We cannot be your friend, we cannot be your enemy, so we just get ignored and treated like pariahs. That is all we have to say.

Mr DANIEL: I thank Mr Musgrave for his comments. I reiterate the comments. It is difficult. At the end of the day developers are one of the highest taxpayers in the community and of course the majority are supplying an important social need, housing and those sorts of things. The developers get something wrong they go broke. They are usually pretty efficient in most of their operations and especially developer builders are as well. They are very attuned to changes in the process or changes in the system and particularly delays and those sort of things, which inevitably hurt them when denied to provide a competitive product.

The result is that we are unable to influence the political system—and not for the sake of getting an individual development through—that is not our remit. What we are trying to do is make sure the system is as efficient as possible so it can actually deliver the benefits that the Environmental Planning and Assessment Act seeks to do. Very important objectives there. Mr Musgrave made reference to affordable housing where Objective (1) (d) of the act is that—and the Parliament has put this forward to the community and put forward to the industry and put forward to its department—facilitating affordable housing is very important.

However what we see is a perverse outcome we are it is actually being opposed by the local government system and those that are operating in the system. We are unable to bring forward a logical and sensible explanation about that, pointing out that disadvantaged people are being hit badly by this. We are unable to have a logical discussion about that because we are prohibited in that sort of way. That is just one example and there are others. We are seeking to be in many respects apolitical because at the end of the day the political colouring of something is not really what should be affecting the planning system. It should be that there is an efficiency there and because we are practitioners in it every day, we want to be able to have an influence and point out those real issues to Government and the areas that administer it and to show the problems.

We are inhibited from doing that effectively and efficiently. I think that is a poor outcome for democracy. I think it is a poor outcome for parliamentarians, dare I say, that need to capture as much evidence as they can when making very important decisions that affect the community. If the key group operating in that system is unable to do it, we respect there is a community expectation, a community concern perhaps, in relation to developers seeking for personal interest to develop links particularly to political parties, we do not seek to change that law. I think that is reasonably established and it operates well. It actually takes a fair bit of pressure off the industry in a way. But in one way I think it is quite important that we are able to raise funds to run specific campaigns on specific issues for the benefit of good clear communication to the community.

The Hon. BEN FRANKLIN: Welcome. Thank you both very much for coming. So can I just get some clarification on some things here? You are not suggesting that you should be able to donate either as individuals, or as an organisation to political parties or to political candidates?

Mr DANIEL: No.

The Hon. BEN FRANKLIN: Great. So this is entirely about whether you would have the opportunity— if you so desired—to register as a third-party campaigner?

Mr MUSGRAVE: Yes.

The Hon. BEN FRANKLIN: This would not just be an issue for you, I assume. If there were some wineries in a particular region who had a particular issue they could not, I assume under the current legislation, band together and set up a little third-party organisation to talk about viticultural issues?

Mr MUSGRAVE: I would assume that would be the case although if you are a coalminer you can, if you are a gas company you can but if you are a small group of winemakers you would be a prohibited donor. If you were a small group of tobacco farmers, I guess, you would also be a prohibited donor. So you would not be able to run third-party campaigns.

The Hon. BEN FRANKLIN: So your fundamental contention is that basically while understanding the original basis for the legislation which is to ensure that there is not and there are not political outcomes achieved due to inappropriate donations and favour buying, that is entirely separate from what you are talking about now.

Mr MUSGRAVE: Absolutely. All we want to be able to do is run campaigns ourselves and specifically levy our members to be able to fund those campaigns.

The Hon. BEN FRANKLIN: Can you give us an example of one sort of campaign you would envisage running under this?

Mr DANIEL: Certainly. I can. One of the problems we have is that because we are not able to enter the field to have rational debates— and if I could just step back again about— the reason why we and the members decided to choose the name the Commercial and Economic Planning Association is because we saw a gap in economic decision-making being applied in the planning system. There became more of a soft sort of an application of planning, the principles of planning science rather than there being a melding of social impacts and also economic realities. At the end of the day we live in a market based society that should be controlled at a point but unless that part of the sector is stimulated and is able to economically viably produce an application or produce a development, they are not going to do it. It is just impossible.

What we are finding more and more is we have left the field. The donations laws are one aspect but there are a whole lot of complexities around that and we have made our comments about our views on that. But now that we have been ostracised out of the political debate on certain issues, we are unable to— the space is then now filled with those that have a different view in relation to how planning applications should be assessed or planning systems should be run. Not that we are saying their views are invalid. You want a good mix of varying opinions to get the right result. That is what you guys do—and ladies do—every time when you are considering serious matters. A clear example is, there is a lot of growth going on in Sydney, in western Sydney. One of the temptations of councils is around the issue of rate pegging. That is a considered issue and it is a balancing issue.

But of course, who are the party that it is easy to perceive as wealthy and able to be slugged? It is the developer. They think, well they are making all this money, let us just do a "value uplift tax" on them. In fact, we had some councils actually saying that word. We could go into constitutional debates and arguments about whether or not they actually have the power to do that, not being enshrined in the Constitution and all that. Those sort of real debates have been going on and we have been limited from being able to get into that to show the reality that if you do some of these systems, we ran our own models on it and Mr Musgrave made reference to it, some of these value uplift sharings were going to raise prices by just over the amount that the Government was providing in subsidies for first-time buyers for stamp duty relief. I mean just ridiculous.

But because we are not there to sensibly argue that case, those sorts of policies have unfortunately gained a level of traction that is not necessarily a good thing for the community because the last thing we want to do is increase housing stress on first home buyers. But that is the reality. So there is a clear actual relevant example and I suppose the sort of things that we like to approach and attack. If we are able to get a better understanding of the costs of the supply chain, we are obviously able to perform better in that.

Mr MUSGRAVE: We are able to release media statements and those sorts of things so we are not precluded from having a voice. But we are precluded from running ads, because that costs money, from running a public awareness campaign that might cost more than we have got and raising a levy to do so.

The Hon. BEN FRANKLIN: Thank you.

Mr PAUL SCULLY: So did you guys try to register as a third-party campaigner?

Mr MUSGRAVE: We are registered as a third-party campaigner and we have raised no money.

Mr PAUL SCULLY: Had the restrictions been removed in your circumstance, would you have been looking to run a campaign across the entire State or in discreet local areas? How would you envisage your involvement in the electoral process?

Mr MUSGRAVE: I envisage that it would have been across the entire State. The planning system applies across the whole State and we would not have been looking to target individual electorates. I would think that from an industry association point of view, when you start looking to play politics like that, you get found out. That dilutes the message and our message is a policy message, it is not a party political message I guess. We had problems with the policy around spot rezoning for instance.

Mr PAUL SCULLY: So did we.

Mr MUSGRAVE: Indeed. We were all set to run a campaign. It was going to be a state-wide campaign and then I made a couple of phone calls to the Electoral Commission and they said you cannot levy any money for a campaign. We said, what can we do? They said we could take the money raised through memberships and put that into the fund. I said that money was spent on administration and we do not have any money to do anything and that was it. So our campaign was limited to one press release that did not get run. That also meant that the Government was then able to start coming out after the election with similar policies around banning spot rezonings whether that is something that they are looking to do or not. We have been given assurances by the Minister that is not necessarily the approach he wants to take. It kind of got us thinking, if both sides can make

the same policy and we are silent then how can we have any influence? How can practitioners, the people who actually build the houses—how can we actually influence the debate? We bumped our heads together and discovered that it is basically at the root of—this is the root of the problem.

Mr PAUL SCULLY: Some people argue in the community more broadly that industry groups, associations and the like already have a disproportionate influence over policymaking, in general terms, because of their capacity to be involved between distinct election periods. For instance, I do not know if you were, but you may have been involved in the review of the Independent Planning Commission. You can make submissions; you have got a capacity to do that. How is it then that you feel so constrained by not being able to participate in a period starting 1 October in the year before an election is due when you have got three years and nine months before that?

Mr DANIEL: That is a fair call. The last thing we want to do is have imbalanced views coming out of the community to the Parliament. The problem is that what we are trying to do is have a rational debate around these sort of things, not just specifically run some campaign on some issue that we are particularly there—that is just running a media presence or anything like that that can tend to run off the rails and be a bit irrational. We regularly deal with the London School of Economics—all these sort of writers—and we internationally go around. We will talk to people from Harvard and things like that. Writing those sort of economics papers to benefit government and put them forward is very, very expensive.

If we can show a connection to our members that here is a serious issue that is affecting your businesses and your supply chain—here is a logical economic debate around that sort of thing that will actually influence government and have considered things—it is pretty apolitical. Let us show the evidence there. They are the sort of things we are finding it very, very difficult to do. So to try to get that out of a base membership which we try to keep lean and run efficiently—we are not a profit-making exercise but we do want to have a really good, considered and intelligent input into it. I think having that restricted around certain election periods—

Mr PAUL SCULLY: Are elections campaigns the best time to do that? Some would argue they are not.

Mr DANIEL: Well, it is and it isn't. You can raise the emotive issues and the concerns and things like that. But, of course, planning system processes and how they work—I wish they weren't, but they are slow by nature a lot of the time. The policy development around them and seeing the impacts from them do take time. For example, let us see at the moment. You only have to look at what the Reserve Bank governor is saying at the moment in relation to his—he is very polite in his language, but he is very concerned about the supply of housing in New South Wales. He has had to release monetary policy a certain way to fix the national economy, but he is very concerned that New South Wales and supply of housing is not ahead of what it should be. That is going to have impacts.

What do we see? It is very, very healthy for people that have a home but it is not so good for people that do not. We were predicting that a long time ago, when the supplies were up, and saying, "Government, you need to do something." We were just inhibited from getting the message through. It is always easier, unfortunately, in this system to say no to something—because that is an empowering statement to an official that is administering something—than to say yes. We need to balance that other side to say why it is actually a good commercial and social outcome to actually say yes in situations. We find that that has got to be a consistent message. Therefore, we want to have it be able to raise funds to bring considered debate around that. Sorry, it is a very long answer.

Mr PAUL SCULLY: No, no. That's fine. In that vein, there is nothing to stop you raising funds outside of an electoral period to do advertising, membership information, events, functions and whatever else that you might want to do, is there?

Mr MUSGRAVE: No, but I would also say that an election campaign period is also the time that new policies are being brought to the fore.

Mr PAUL SCULLY: Sure. But most of the development, as you well know, is done long before, often.

Mr MUSGRAVE: Yes, often. Sometimes it can be a surprise. Sometimes between 1 October and the fourth weekend in March is the time that policies get released from both governments and oppositions.

Mr PAUL SCULLY: They obviously get released but a lot of the work is done before.

Mr MUSGRAVE: A lot of the work is done before. We are not necessarily privy to that work because oftentimes we are not consulted, because we can't be your friend and we can't be your enemy.

Mr PAUL SCULLY: If you go down a path of—somehow the rules were relaxed. You are able to be third-party campaigners. You can see that at least half of your membership are prohibited donors. While your stated intentions now are that you would only do information-type campaigns, there could be an interpretation of

backing a particular candidate or candidates in certain areas. Whether or not that had a sway on the result could only be told after the election result had been. How do you deal with that circumstance, proving or disproving the fact that a developer finance has effectively gotten candidates A, B, C or whoever over the line in certain areas?

Mr MUSGRAVE: That is a good question. All I would say is that we would only intend to use this for policy reasons, but I do take your point.

Mr PAUL SCULLY: It is an ex-post examination.

Mr MUSGRAVE: Taken to its logical conclusion, a third-party prohibited donor could end up doing that. If the rules were relaxed then maybe they should be relaxed in a way that did not allow that to happen. I do not know how that could happen but I am saying the concern that we are bringing to the Committee today is, I think, a legitimate one around our involvement in the policy debate, particularly during that six-month blackout period. Also, I do not like the prospect of going to jail.

Mr PAUL SCULLY: There are very few people who do.

Mr MUSGRAVE: Very few people who do. My wife also does not like the idea of me going to jail. We are very conservative around the way that we interpret the Electoral Act.

Mr PAUL SCULLY: That is not meant as any reflection on either of you. It is just a more general statement.

Mr MUSGRAVE: And I take your point.

Mr PAUL SCULLY: If you relax that set of rules, then it is relaxed for everybody. Theoretically it could be relaxed with the best intentions of the existing cohort of third-party campaigners which suddenly expands at the next election.

Mr MUSGRAVE: That is a possibility, but I will also say that the coal industry can back a candidate today.

Mr PAUL SCULLY: Yes, but the coal industry also has to declare all of its donations whenever it is involved in any application going forward—that includes the working side of it—to every candidate in the country, not just one area.

Mr MUSGRAVE: I guess we would be happy to do the same.

Mr PAUL SCULLY: It has a significant declaration requirement above and beyond that which is required by the Electoral Act, as a result of planning applications.

Mr MUSGRAVE: I would say that, if it were to be relaxed, then maybe that is something that could befall—a similar kind of thing could befall prohibited donors as well. Maybe that would be an additional check and balance. If you relax it one way—

Mr PAUL SCULLY: Wouldn't it effectively be easier then to overturn the donor prohibition, in which case we get back to where we were several years ago and all the issues associated with that? I will leave it at that.

Mr MUSGRAVE: I do take your point, though. It is a question then of design.

Mr PAUL SCULLY: When you start tugging on these things, it can prove difficult to have the checks and balances in place.

Mr MUSGRAVE: The jumper kind of falls apart.

The CHAIR: Thank you for appearing before the Committee today. The Committee may wish to send you some additional questions in writing, the replies to which will form part of your evidence and be made public. Would you be happy to provide a written reply to any further questions?

Mr MUSGRAVE: Absolutely.

(The witnesses withdrew.)

The Committee adjourned at 16:00.