



LEGISLATIVE ASSEMBLY FOR THE AUSTRALIAN CAPITAL TERRITORY

SELECT COMMITTEE ON ESTIMATES 2023-2024

Mr Mark Parton MLA (Chair), Ms Jo Clay MLA (Deputy Chair),
Mr Michael Pettersson MLA

ANSWER TO QUESTION ON NOTICE

Mr Braddock MLA: To ask the Electoral Commissioner

ACT Electoral Commission

Hearing Date: 25 July 2023

In relation to: Detection of errors in electronic ballot systems

In the 2020 election results, I understand that the online distribution of preferences of Brindabella and Murrumbidgee were edited after discovering evidence involving the inaccurate counting of votes due to errors in the counting system which had not been detected by software certification processes.

If a similar unnoticed software error was present in the electronic voting system for votes lodged electronically, how could it be detected, including in the absence of a verifiable paper record?

Damian Cantwell AM CSC : The answer to the Member's question is as follows: –

The counting errors referred to by Mr Braddock relate to minor errors in which the electronic counting system was coded to interpret the Electoral Act in ascertaining the 2020 election result. This specifically refers to how the system grouped transfer values of the same value and how the system rounded down vote values to six decimal places, in implementation of the July 2020 legislation change.

Between the 2016 and 2020 ACT elections, Elections ACT commenced a major redevelopment upgrade of eVACS®, building on the system's already significant security and integrity design and configuration features. This included re-coding the software suite into Ada, a premier programming language designed for engineering safe, secure and reliable software.

The two categories of counting errors noted above identified following the 2020 election were a result of mis-implementation or misinterpretations of the Electoral Act during the re-coding, impacted by the late passing of electoral legislation by the Assembly - only 81 days before voting commenced.

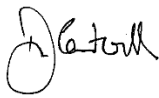
The independent software certification process engaged by Elections ACT is aimed at verifying that the system contains no malicious code that could insert, alter or delete ballot information unlawfully. Neither of the identified counting application errors were matters that were within the scope of the certification process, nor would they have been detected through the implementation of a verifiable paper record.

Elections ACT undertakes a suite of electoral integrity measures aimed at delivering a trusted, transparent, secure and accessible election. Such measures include making the code openly

available for scrutiny, a broad and thorough testing regime which includes functionality, system, penetration and load testing, engagement of external experts to undertake system security assessments, and numerous cyber and physical security measures aimed at preventing malicious and unintentional interference in the election outcome.

The Commission's views and advice related to the proposal of a verifiable paper record in ACT elections is unchanged from that documented in several submissions to the Assembly and in responses to Hearings and Inquiries. The Commission's 2005 analysis of the potential for implementation of such a process within eVACS concluded that providing paper receipts of electronic votes would add an unnecessary level of risk, cost and complexity. Extensive checks and balances inherent in the system design, continuous modernisation and enhancements based on over 20 years of operational use, and the integrity assurance measures outlined above provide the most appropriate balance of trust, functionality, security, integrity, reliability and efficiencies in the deployment of eVACS and related processes.

Approved for circulation to the Select Committee on Estimates 2023-2024

Signature: 

Date: 7 August 2023

By the ACT Electoral Commissioner, Damian Cantwell AM CSC