

OFFICE OF THE COUNTY ADMINISTRATOR

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July 24, 2012

TO: Board of Supervisors

FROM: Dee F. Bruemmer, County Administrator

SUBJECT: Purchase of Memory Cards

In response to the County Auditor's requested expenditure of \$44,100, these funds would normally would be planned and recommended in the capital budget. In order not to use fund balance for the Auditor's project, the money will be reallocated the capital budget from the exterior lighting project which is budgeted at \$40,000. The exterior light project was to replace the overhead parking lighting due to the end of life for these fixtures. This capital budget reallocation will eliminate the costs savings anticipated with the new lights due to energy reduction.

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To: Scott County Board of Supervisors
From: Roxanna Moritz, Scott County Auditor & Commissioner of Elections
Re: Recommended Solution to Memory Card Failure in Vote Tabulators
Date: July 23, 2012

Copy: Dee Bruemmer, County Administrator

My office is requesting that the Board of Supervisors approve the purchase of 126 new Accu-Vote memory cards at a price of \$350 per card for a total cost of \$44,100. This cost was not factored into the Election Department budget and would need a separate appropriation from the Board of Supervisors.

This new version of the Accu-Vote memory card is based on magneto-resistive technology, and promises to solve the persistent problem of memory card formatting loss in the Accu-Vote vote tabulator system. For the 2012 general election we will use 80 cards. An additional 46 cards are needed when there are back to back elections, such as when school board, municipal primary and municipal elections occur within a three month time span.

BACKGROUND

As my office has reported to you in the past, the Accu-Vote optical scan vote tabulation system, which the county purchased in 2006, has proven to be less than fully reliable. The reliability issue arises from periodic loss of program formatting due to memory cards incurring electro-static discharge. The current version of the memory card has no protection against static charge. There have been only minor problems with the mechanical system.

Loss of formatting results in delayed reporting of election results. When a memory card loses formatting election results must be hand entered into the Global Election Management (GEMS) report system. Depending on which cards lose formatting, the delay in reporting can be quite extensive. For example, several memory cards failed during the 2008 general election which led, in part, to a long delay in reporting final election results. Several media outlets reported false final results based on partial reporting. We have incurred formatting loss in almost every election. During the 2012 primary election we lost formatting for memory cards in 24 precincts.

To be clear, the integrity of an election could not be endangered by loss of formatting. Because we use a voter verified paper ballot system the vote can always be recounted if necessary. The harm is not meeting the public expectation of reporting results within minutes of closing the polls.

We have taken a variety of steps to mitigate this problem. For example, we use anti-static bags to transport the memory cards from the polling places to the Administrative Center.

Precinct officials are instructed to ground themselves before touching a card. Also, we run humidifiers and deploy grounding mats in the absentee ballot counting room to reduce the amount of static electricity. Despite these efforts we consistently lose formatting in several machines each election.

Because of the inherent unreliability of the memory card my office has recommended that the Board look to purchase a new election system within the next few years. Buttressing that recommendation was the report that Premier Election Systems (the previous developer and manufacturer of the Accu-Vote system) would no longer support the system. Purchase of a new system for \$680,000 has been planned into the capital budget for fiscal year 2016. This amount equals the 2006 purchase price for our current system. A new system could cost substantially more.

Two changes have occurred which has led my office to rethink this recommendation. First, Dominion Voting Systems acquired the Accu-Vote system. Dominion has committed to continue supplying parts for the system. There are currently 22,000 Accu-Vote units in service in the United States, which should create a large enough market for the continued commercial viability for manufacture of replacement parts.

Second, as part of that commitment Dominion developed a new, more stable memory card. The memory in the new card is Magneto-resistive Random-Access Memory (MRAM), a non-volatile computer memory that utilizes magnetic storage. The memory in the old card was Static Random-Access Memory (SRAM). SRAM is a volatile memory type which required battery power to retain programming. In contrast, MRAM does not require power to retain programming. Most importantly, the new card has electro-static discharge protection built into the circuit design. The SRAM card has no static protection.

This new card passed testing by SLI Global Solutions on April 27, 2012. SLI Global Solutions is a software testing firm accredited by the National Institute of Standards (NIST), the Election Assistance Commission (EAC) as a Voting Systems Test Laboratory and the National Voluntary Lab Accreditation Program (NVLAP).

The Iowa Board of Voting Equipment Examiners approved general use of the new card on May 10, 2012, and use of the card with Scott County's specific version of GEMS on June 29, 2012. According to the minutes of the May 10th meeting, examiner Kyle Phillips with the Office of Secretary of State made an analysis of the memory card, expressing that he believed that the MRAM was the best memory type available. Use of the card was considered a de minimis change by the Board.

No Iowa jurisdictions have used this card in an election environment. The card was used in the April 24, 2012 Presidential Primary Election in Vernon, Connecticut. Other jurisdictions are scheduled to use the card during August 2012 primary elections.

THE COUNTY AUDITOR'S SIGNATURE
CERTIFIES THAT THIS RESOLUTION
HAS BEEN FORMALLY APPROVED BY THE
BOARD OF SUPERVISORS ON _____.
DATE

SCOTT COUNTY AUDITOR

RESOLUTION

SCOTT COUNTY BOARD OF SUPERVISORS

August 2, 2012

APPROVAL OF PURCHASE OF 126 ACCU-VOTE MEMORY CARDS
FOR A TOTAL COST OF \$44,100.

BE IT RESOLVED by the Scott County Board of Supervisors as follows:

- Section 1. The Scott County Board of Supervisors approves the request of the County Auditor for purchase of 126 new MRAM Accu-Vote OS Memory Cards at a price of \$350 per card for a total cost of \$44,100 from Election Source.
- Section 2. This resolution shall take effect immediately.