

September 19, 2005
11 Fairview Drive
Wethersfield, CT 06109

Ms. Susan Bysiewicz
Secretary of the State
30 Trinity Street
Hartford, CT 06106

Dear Secretary Bysiewicz,

The recent opinion by the Election Assistance Commission (EAC) that lever machines cannot be used in the 2006 elections has changed the landscape for how Connecticut can best meet the HAVA requirements in time for the 2006 elections.¹ No longer is it sufficient to put one accessible machine in each polling place. Now all lever machines must be replaced.

I am writing today to suggest a way out of the dilemma of how best to spend the state's limited HAVA funds in meeting Connecticut's voting needs. In the *Hartford Courant* last Friday, you were reported to have mentioned optical scan technology as one way to meet the HAVA requirements. As you also know, I and other members of TrueVoteCT believe that optical scan is currently the best available technology for the State of Connecticut.

Much has changed in the field of electronic voting since your office began formulating and implementing the State's HAVA plan. When the RFP was formulated, the only federally certified systems that satisfied HAVA accessibility requirements were DRE systems. This is no longer true. Moreover, in the intervening months, as state after state has grappled with the HAVA requirements, we have learned a lot about the strengths, weaknesses, and costs of electronic voting technology. And many states, like Connecticut, have passed laws requiring voter verified paper records.

Given all that's happened in recent months, the recent opinion by the EAC should be looked at as an opportunity for Connecticut to reevaluate the various technological options that are available.

So with the hope that I can help strengthen your understanding of the optical scan option and improve your opinion of it I offer the following points of information. For some of the points, I will attach materials that provide more details and supporting evidence.

- **Optical scan plus ballot marking devices meet all HAVA requirements.** It is possible today to meet all HAVA requirements by implementing a system based on optical-scan voting technology supplemented with one ballot marking device per voting precinct. One such ballot marking device, the AutoMARK, was federally certified in June 2005 (NASED certification #N-1-16-22-12-001), and it is also certified for use in a number of states, including California. So far, counties in California, Florida, Idaho

(statewide), Iowa, Michigan, South Dakota (statewide), West Virginia, and Wyoming (20 out of 23 counties) have decided to deploy the AutoMark to meet HAVA's disability access requirements.

- **The State's HAVA funds are sufficient to replace all lever machines.** As the study conducted by Yale University Computer Scientist Michael Fischer shows, it would cost around \$24 million to replace all of Connecticut's lever machines with a system based on optical scan plus an accessible ballot marking device such as the AutoMARK. That is well within the \$33 million the State has received to implement its HAVA plan. A copy of the study is attached.²
- **The AutoMark is the most accessible device on the market.** As the attached charts show, the AutoMark provides accessibility to more types of voters than most DRE machines currently on the market.³ Adopting the AutoMark for Connecticut would make voting **accessible to more disabled voters** than any of the DRE machines made by Diebold, Sequoia, and other major manufacturers. In addition to tactile keypads, the AutoMark provides binary-switch interfaces, such as sip-and-puff devices, foot pedals, and jelly switches, while most DREs do not. Thus, an AutoMark would be accessible to voters with manual dexterity disabilities who can only vote using a sip-and-puff interface, an option not available on Diebold and Sequoia DREs.
- **AutoMark has widespread support in the disability community.** The Automark enjoys widespread and growing support within the disability community, and was the top-rated voting system according to a recent survey of disabled voters conducted by the Oregon Secretary of State's office. See the attached articles.⁴
- **AutoMark satisfies HAVA and ADA requirements.** As the attached legal opinion shows, the AutoMark is in compliance with HAVA's and the ADA's accessibility requirements.⁵ Also, as noted in EAC Advisory 2005-004 (issued July 20, 2005)⁶:
1) The disabled voter need not and in many cases cannot have an identical voting experience as a non-disabled voter; 2) ballot privacy sleeves provide a valid method for ensuring the privacy of paper ballots cast by voters with disabilities; and 3) HAVA's disability access requirement (§301(a)(3)(B)) can be met by other accessible voting systems besides DREs.
- **Optical scan paper ballots are easier to hand-count than DRE VVPR printouts.** Connecticut's S.B. 55 establishes audit and recount processes that require the manual counting of "each elector's contemporaneously produced, individual, permanent, voter-verified paper record", or VVPR. Optical scan paper ballots are their own VVPR, and because they are printed on stiffer paper stock which tends to remain flat, they are much easier to count by hand than the VVPR printouts produced by DRE voting machines. Thus, the use of optical scan paper ballots will reduce the level of effort required to conduct any such manual recounts. Note that optical scan paper ballots are already routinely hand-counted as part of mandatory manual audits conducted in states such as California and New Hampshire.

- **Optical scan voting systems are still the dominant voting technology in the U.S.** In 2004, more jurisdictions used optical scan than any other voting technology, and more ballots were cast using that technology than any other. Some states, including ones as diverse as Oklahoma and Rhode Island, have been using optical scan voting systems exclusively statewide, and Michigan is now in the process of implementing a statewide optical scan voting system and will be replacing its DRE voting systems with optical scan. In 2005, sales of optical scan voting systems have so far outpaced those of DRE voting systems.
- **Optical scan voting systems are a widespread, mature and proven technology.** Optical scan technology is well established and has been reliably used for decades, not only for voting systems, but for large-scale educational tests (e.g., the SAT) and nationwide surveys. The technology is well supported across a variety of different industries. It provides an operational lifetime of decades, and its operational costs are well known. Note that some jurisdictions (e.g., Miami-Dade County, Florida) are planning to abandon their enormous investments in DRE voting technology (due to unexpectedly high operational costs) and instead switch to optical scan voting systems whose operational costs have been shown to be lower.
- **Optical scan technology is scalable and flexible, while DRE technology is not.** A given DRE voting machine can only handle a certain number of voters, variously estimated at 150 to 250 voters per day, depending on the length and complexity of the ballot. Thus, a polling place that supports 750 votes would require somewhere between 3 to 5 DREs. If the number of voters per polling place increases, more DREs must be added, at a cost of \$5,000 to \$8,000 each. In contrast, an optical scan voting system requires only one precinct-count optical scanner and ballot marking device per polling place. If there is an increase in the number of voters, only inexpensive voting booths need to be added. On election day, if there are too few such voting booths at one polling place and too many at another, voting booths can be re-allocated since they neither store any votes nor are they configured for a specific polling place. DREs do not offer such flexibility, and cannot be moved once voting has begun.
- **Optical scan systems solve the “hanging chad” problem.** As the attached 2001 study by the Caltech/MIT Voting Technology Project shows, “manually counted paper ballots have the lowest average incidence of spoiled, uncounted, and unmarked ballots, followed closely by lever machines and optically scanned ballots.⁷ Punchcard methods and systems using direct recording electronic devices (DREs) had significantly higher average [error] rates.” Since 2001 optical scan technology has greatly improved to the point where today’s precinct-based scanners alert the voter to overvotes and undervotes.

As I said above, I hope you will see the recent EAC opinion regarding lever machines as an opportunity to take another look at the available electronic voting technologies. If you do, I think you will find that optical scan systems, supplemented with one accessible ballot marking device per polling place, provide an accessible, cost-effective, and technologically sound and mature solution to the dilemma of how best to meet the HAVA requirements for Connecticut within the available federal funding.

I wish to reiterate that TrueVoteCT's advocacy for the optical scan solution is not based on any kind of relationship with voting machine vendors. We are simply a non-profit and non-partisan community advocacy group working for open, accessible and transparent elections in Connecticut.

As always, my colleagues and I at TrueVoteCT would be happy to meet with you to discuss the contents of this letter.

Sincerely,

Ralph Morelli
TrueVoteCT
(<http://www.truevotect.org>)

CC: Governor M. Jodi Rell
Attorney General Richard Blumenthal
Mr. Richard Abbate, President, ROVAC
Ms. Linda Yelmini, Commissioner, Department of Administrative Services
Ms. Susan Thomas, Contract Officer, Department of Administrative Services
Mr. Jeffrey Garfield, Executive Director, State Elections Enforcement Commission
Sen. Donald DeFrongo, Co-Chair, GAE Committee
Rep. Christopher Caruso, Co-Chair, GAE Committee
Rep. Timothy O'Brien, Vice-Chair, GAE Committee
Rep. Edward Meyer, Vice-Chair, GAE Committee
Rep. Livvy Floren, Ranking Member, GAE Committee
Senator Judith Freedman, Ranking Member, GAE Committee
Ms. Jara N. Burnett, Co-President, League of Women Voters of Connecticut
Ms. Rosemarie Skoglund, Co-President, League of Women Voters of Connecticut
Ms. Christine Horrigan, Director, Government, LWVC

¹ EAC Advisory 2005-005: Lever Voting Machines and HAVA Section 301(a), <http://www.eac.gov/advisories.htm>, September 2005.

² Michael Fischer, "Options for Replacing Connecticut's Voting Machines: A Cost Analysis", <http://www.truevotect.org/>, March 2005.

³ Oregon Secretary of State, Study of Accessibility Chart, http://www.automarkts.com/Documents/dre_summary_chart.pdf, April 2005; Verified Voting Foundation, Accessibility Study Charts, <http://www.verifiedvotingfoundation.org/downloads/20050816.accesscharts.all.pdf>, August 2005.

⁴ National Association of Protection and Advocacy Systems (NAPAS), "Voting Machines and Individuals with Dexterity Disabilities",

<http://www.verifiedvotingfoundation.org/napas>, 2005;
Verified Voting Foundation, “Ballot Marking Best for Accessible and Verified Voting”,
<http://www.verifiedvotingfoundation.org/article.php?id=6254>, August 2005.

⁵ Trexler, Bushnell et al., Legal Opinion on AutoMark,
<http://www.automarkts.com/Documents/ATS-HavaCompliance.pdf>, April 2005;
ES&S, Letter regarding accessibility of AutoMark,
<http://www.automarkts.com/Documents/Final%20CA%20letter.pdf>, Sept. 2005.

⁶ EAC Advisory 2005-004: Lever Voting Machines and HAVA Section 301(a),
<http://www.eac.gov/advisories.htm>, July 2005.

⁷ Caltech/MIT Voting Technology Project, “Residual Votes Attributable to Technology”,
<http://www.vote.caltech.edu/reports/2001report>, pp. 22-25, March 2001.