



January 30, 2007

William Francis Galvin,
Secretary of the Commonwealth
State House
Room 337
Boston, Massachusetts 02133

By hand delivery and e-mail

Re: Purchasing Accessible and Secure Voting Machines in Massachusetts

Dear Secretary Galvin:

We understand that you are in the process of gathering information concerning what voting equipment Massachusetts should purchase in order to guarantee that voters with disabilities have equal access to the ballot. We appreciate your taking a considered, deliberative approach in this matter. Your decision to make a significant taxpayer investment in secure, accurate and accessible voting equipment warrants that careful evaluation.

Because it is important that you receive as much informed input as possible, we write to make sure that our views—reflecting input from both the disability rights community and the computer security community—will be part of your research and decision-making process.

On the basis of experience and information we have evaluated regarding the three systems currently under consideration for funding (Hart InterCivic eSlate; Diebold TSx/GEMS and AutoMARK/ES&S 100), we believe that the rights of Massachusetts voters with disabilities to equal access to a secure ballot would clearly be best served by using an automatic ballot marking system, such as the AutoMARK.

From an accessibility perspective, the AutoMARK device permits disabled voters to use Braille, jelly buttons, a puff-sip interface and audio technology to mark a paper ballot, which can be counted by optical scan or by hand. The audio output communicates the complete contents of the ballot and provides appropriate instructions to the voter. The speed of the speech associated with the audio output is also voter-adjustable, which greatly enhances usability for voters who are blind or have low vision. The screen is large enough to support large fonts, and the tactile controls have distinguishing shapes and colors, which support ease of use for a voter with low vision. The AutoMARK equipment also allows the voter an effective opportunity to review his or her ballot and make edits if necessary prior to the votes being counted. In short, the AutoMARK device has consistently received the highest overall ratings from the disability community.

Also, of the three systems under consideration, an automatic ballot marking system is reportedly the easiest system for poll workers to operate and to assist in operating. The practical experience of people whose on-the-ground jobs are to help individual voters and make our elections apparatus operate at hundreds of polling places deserve considerable weight. In our experience, poll workers *who have been sufficiently trained* regarding the use of AutoMARK have not experienced significant difficulty with its operation or with assisting voters with its use.

The two other types of equipment your office has under consideration for purchase—AccuVote TSX, made by Diebold Election Systems, and eSlate, made by Hart InterCivic—are direct recording electronic DRE machines. DREs raise very serious security and reliability issues.

Many computer security experts believe all DREs are prone to error and vulnerable to tampering. They're susceptible to both intentional system-wide tampering and accidental "bugs." A single programmer at a DRE manufacturer could conceivably change the code in many or all of the DRE products without detection. DREs also carry the danger of "statistical tampering"—changing the software so that it miscounts an undetectable, but significant, number of votes in favor of—or against—one party or candidate or issue.

Virtually every type of DRE has raised security and reliability concerns around the country. All of the most commonly purchased electronic voting systems "have significant security and reliability vulnerabilities which pose a real danger to the integrity of national, state and local elections," according to a recent study by the Brennan Center for Justice at New York University School of Law. Arkansas, Florida, Illinois, Indiana, Ohio, Pennsylvania, New Jersey, Texas, and West Virginia have reportedly faced serious problems with DRE voting systems. As you know, the reports of problems with electronic voting in last year's elections have come from many states and localities—even from the "laboratories" which were certified to test and certify voting equipment. "Changes Are Expected in Voting By 2008 Election," *The New York Times*, December 8, 2006, p. 1; "Citing Problems, U.S. bars Lab From Testing Electronic Voting," *The New York Times*, January 4, 2007, p. 1. New federal legislation in this area, setting equipment standards and laying out other requirements, is under active consideration.

The voter verified paper trail (VVPAT) feature offered by the TSX and eSlate products *does not and cannot*, by itself, ensure the security and reliability of Massachusetts' votes. As the September 28, 2006 report prepared for your office by Dr. Michael Ian Shamos concludes, "I have not found any credible threat that would not be detected by the VVPAT *and parallel testing with routine manual audits*" (emphasis supplied). While we applaud any effort by your office to institute mandatory manual auditing and parallel testing procedures for each vote, such rigorous auditing procedures have yet to be adopted in most states. Yet, a paper record of a voter's choice has value only if such a routine audit is performed automatically and, even then, the technology remains vulnerable to software attacks and errors.

Moreover, a VVPAT feature works only if it is fully accessible to people with disabilities. Otherwise, a VVPAT feature does not ensure the equal access to the ballot

for voters with disabilities mandated by HAVA. In contrast, because it is designed to mark a physical ballot which can be examined by the voter prior to his or her vote being cast, an automatic ballot marking system creating a paper trail similar to the optical scan ballot currently in use in Massachusetts. Indeed, compatibility with the current optical scan ballot counting system is yet another reason to use a ballot-marking system rather than shifting to a DRE, since it would ensure uniformity and cost-effectiveness in counting and, when necessary, during recounts.

Voting that is both accessible and secure is essential to ensuring the integrity of the entire elections system in the Commonwealth. We believe that providing secure voting machines for voters with disabilities is part and parcel of protecting their rights to equal access to the ballot and to having their votes reliably counted.

We fully share your concerns that the Commonwealth's dollars and its HAVA funding purchase equipment that both enhances voting rights and serves us well over the practical, technological long-term.

We would welcome an opportunity to speak with you about these issues, and to make available to you and your staff the expertise of our respective organizations on this important decision. Thank you for your sustained and thoughtful attention, on behalf of all voters in the Commonwealth, to these important issues.

Sincerely,

Carol V. Rose
Executive Director
American Civil Liberties Union of Massachusetts

Stanley J. Eichner
Executive Director
Disability Law Center, Inc.