WISCONSIN STATE LEGISLATURE ...
PUBLIC HEARING - COMMITTEE RECORDS

2005-06
(session year)

Senate
(Assembly, Senate or Joint)

Committee on Labor and Election Process Reform...

COMMITTEE NOTICES ...

➢ <u>Committee Reports</u> ... **CR**

➢ <u>Executive Sessions</u> ... **ES**

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INFORMATION COLLECTED BY COMMITTEE <u>FOR</u> AND <u>AGAINST</u> PROPOSAL

➢ <u>Appointments</u> ... **Appt** (w/Record of Comm. Proceedings)

➢ <u>Clearinghouse Rules</u> ... **CRule** (w/Record of Comm. Proceedings)

➢ <u>Hearing Records</u> ... bills and resolutions (w/Record of Comm. Proceedings)
   (**ab** = Assembly Bill)   (**ar** = Assembly Resolution)   (**ajr** = Assembly Joint Resolution)
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➢ <u>Miscellaneous</u> ... **Misc**

Senate

Record of Committee Proceedings

Committee on Labor and Election Process Reform

Assembly Bill 627

Relating to: electronic voting system standards.

By Representatives Pocan, Freese, Ainsworth, Berceau, Black, Grigsby, Gunderson, Kessler, Lehman, Lothian, Molepske, Musser, Nelson, Parisi, Pope-Roberts, Richards, Seidel, Sheridan, Sherman, Shilling, Sinicki, Townsend, Travis, Wood and Gundrum; cosponsored by Senators Plale, Carpenter, Erpenbach, Grothman, Hansen, A. Lasee, Olsen, Reynolds and Risser.

November 11, 2005   Referred to Committee on Labor and Election Process Reform.

November 29, 2005   **PUBLIC HEARING HELD**

Present: (5)   Senators Reynolds, Lazich, Kanavas, Hansen and Carpenter.
Absent: (0)   None.

Appearances For
- Jeff Plale — Senator
- Paul Malischke, Madison — Fair Elections Wisconsin

Appearances Against
- Anthony Buldin, Milwaukee — Voting Technologies International
- Brandon Scholz, Madison — Voting Technologies International

Appearances for Information Only
- Kevin Kennedy — State Elections Board

Registrations For
- Mark Wollum, Beaver Dam
- George Penn, Madison
- Mara Zimmerman, McFarland
- Michael Quietr, Madison
- Lauren Vedal, Madison
- Jacqueline Scott, Madison
- Donna Vukelich, Madison
- Sofia Brichford, Madison
- Brian Juchems, Madison
- Deborah Renard, Shorewood
- Jaqueline Lindo, Mequon
- Eric Anderson, Madison
- Julien Colvia, Madison

- Molly Todd, Stoughton
- Liberty Karp, Madison
- Peter Brinson, Madison
- Mary Ebeling, Madison
- Mark Supanich, Madison
- Aubin Maynard, Madison
- Tim Carpenter — Senator
- Suzanne Leonard, Milwaukee
- Libbie Freed, Madison
- Beverly Speer, Madison
- Brian Tanner, Madison

Registrations Against
- Donna Bowen, Milwaukee — Voting Technologies International
- Bill Benning, Hartland — Voting Technologies International
- Dan Ross, Madison

December 5, 2005   EXECUTIVE SESSION - POLLING

Moved by Senator Reynolds, seconded by Senator Kanavas that **LRB a1673** be recommended for introduction and adoption.

      Ayes: (3)   Senators Reynolds, Lazich and Kanavas.
      Noes: (2)   Senators Hansen and Carpenter.

INTRODUCTION AND ADOPTION OF LRB A1673 RECOMMENDED, Ayes 3, Noes 2

Moved by Senator Reynolds, seconded by Senator Kanavas that **Assembly Bill 627** be recommended for concurrence as amended.

      Ayes: (4)   Senators Reynolds, Lazich, Kanavas and Carpenter.
      Noes: (1)   Senator Hansen.

CONCURRENCE AS AMENDED RECOMMENDED, Ayes 4, Noes 1

Patrick Henneger
Committee Clerk

SENATE COMMITTEE ON LABOR AND ELECTION PROCESS REFORM

Paper Ballot: Senator Carpenter

Please return your vote via ballot to Senator Reynolds' office (306 South) by **noon on December 5th, 2005.**

Thank you.

MOTION

Recommend introduction and adoption of LRB a1673/1 to Assembly Bill 627 (*Attached is a copy of LRB a1673/*).

Aye _____   Nay ___✓___

MOTION (Answer both alternatives)

Recommend Assembly Bill 627 for passage as amended (if amendment passes)?

Aye ___✓___   Nay _____

Recommend Assembly Bill 627 for passage (if amendment fails)?

Aye ___✓___   Nay _____

Signature

Tim Carpenter

Distributed 12-5-05, 10 AM

SENATE COMMITTEE ON LABOR AND ELECTION PROCESS REFORM

Paper Ballot: Senator Hansen

Please return your vote via ballot to Senator Reynolds' office (306 South) by **noon on December 5th, 2005.**

Thank you.

MOTION

Recommend introduction and adoption of LRB a1673/1 to Assembly Bill 627 (*Attached is a copy of LRB a1673/*).

Aye _____   Nay __✗_____

MOTION (Answer both alternatives)

Recommend Assembly Bill 627 for passage as amended (if amendment passes)?

Aye _____   Nay __✗_____

Recommend Assembly Bill 627 for passage (if amendment fails)?

Aye __✗____   Nay _____

Signature

_____

Distributed 12-5-05, 10 AM

SENATE COMMITTEE ON LABOR AND ELECTION PROCESS REFORM

Paper Ballot: Senator Kanavas

Please return your vote via ballot to Senator Reynolds' office (306 South) by **noon on December 5th, 2005.**

Thank you.

MOTION

Recommend introduction and adoption of LRB a1673/1 to Assembly Bill 627 (*Attached is a copy of LRB a1673/*).

Aye __X__   Nay _____
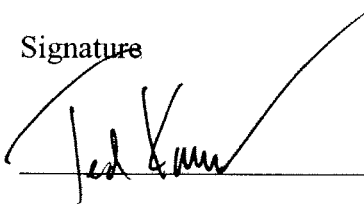
MOTION (Answer both alternatives)

Recommend Assembly Bill 627 for passage as amended (if amendment passes)?

Aye __X__   Nay _____

Recommend Assembly Bill 627 for passage (if amendment fails)?

Aye __X__   Nay _____

Signature _____

Distributed 12-5-05, 10 AM

SENATE COMMITTEE ON LABOR AND ELECTION PROCESS REFORM

Paper Ballot: Senator Lazich

Please return your vote via ballot to Senator Reynolds' office (306 South) by **noon on December 5th, 2005.**

Thank you.

MOTION

Recommend introduction and adoption of LRB a1673/1 to Assembly Bill 627 (*Attached is a copy of LRB a1673/*).

Aye __X__   Nay _____

MOTION (Answer both alternatives)

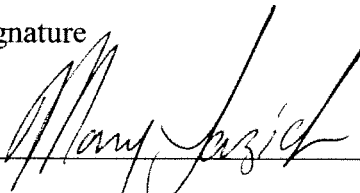Recommend Assembly Bill 627 for passage as amended (if amendment passes)?

Aye __X__   Nay _____

Recommend Assembly Bill 627 for passage (if amendment fails)?

Aye __X__   Nay _____

Signature _____

Distributed 12-5-05, 10 AM

SENATE COMMITTEE ON LABOR AND ELECTION PROCESS REFORM

Paper Ballot: Senator Reynolds

Please return your vote via ballot to Senator Reynolds' office (306 South) by **noon on December 5th, 2005.**

Thank you.

MOTION

Recommend introduction and adoption of LRB a1673/1 to Assembly Bill 627 (*Attached is a copy of LRB a1673/*).

Aye __X__   Nay _____

MOTION (Answer both alternatives)

Recommend Assembly Bill 627 for passage as amended (if amendment passes)?
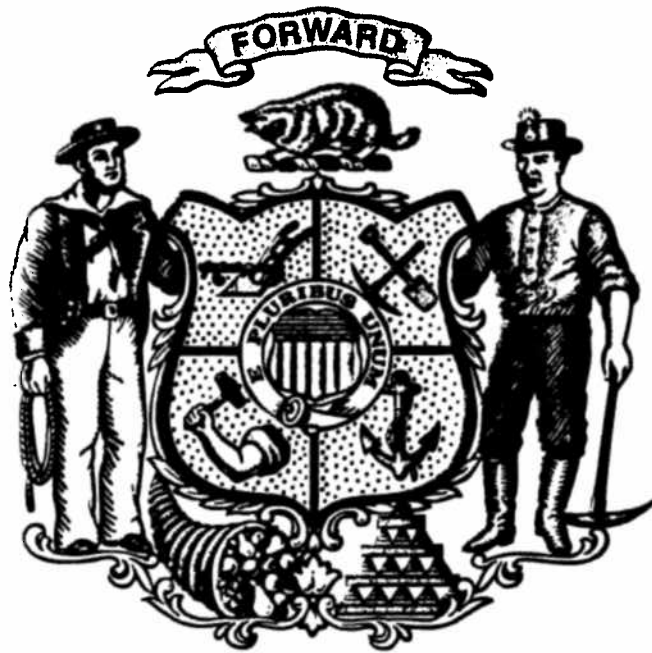
Aye __X__   Nay _____

Recommend Assembly Bill 627 for passage (if amendment fails)?

Aye __X__   Nay _____

Signature _~Tom Reynolds~_
_____

Distributed 12-5-05, 10 AM

WISCONSIN LEGISLATIVE COUNCIL
AMENDMENT MEMO

2005 Assembly Bill 627	Assembly Substitute Amendment 2

CURRENT LAW

Current law defines an "electronic voting system" as a system in which votes are recorded on ballots, and the votes are subsequently counted and tabulated by automatic tabulating equipment. The term also includes a voting machine on which votes are recorded and tabulated by electronic means. Current law requires the Elections Board to approve all electronic voting systems prior to their use at elections in the state. The statutes contain a number of specific requirements that an electronic voting system must meet before being approved by the board. Among other things, an electronic voting system must, effective January 1, 2006, permit an elector to privately verify the votes selected by the elector before casting his or her ballot and produce a permanent paper record of the vote cast by each elector at the time that it is cast that enables a manual count or recount of the elector's vote. Further, municipalities that use an electronic voting system which utilizes automatic tabulating equipment must publicly test the equipment prior to the election to make sure that it counts correctly.

Currently, the type face on paper ballots must be easy to read and the type size may be no smaller than 8 point. This is 8 point font.

2005 ASSEMBLY BILL 627

2005 Assembly Bill 627 provides that if a municipality uses an electronic voting system for voting at an election, the municipal clerk must provide to any person, upon request and at the expense of the municipality, the coding for the software that the municipality uses to operate the system and to tally the votes cast. Additionally, an electronic voting system could not be approved for use by the Elections Board unless the coding for the software that is used to operate the system on election day and to tally the votes is publicly accessible and may be used to independently verify the accuracy and reliability of the operating and tallying procedures to be employed at the election.

In addition, the bill provides that if a voting device consists of an electronic voting machine, it must generate a complete paper ballot showing all votes cast by each elector that is visually verifiable by the elector before the elector leaves the machine and that enables a manual count or recount of each vote cast by the elector.

The bill takes effect on January 1, 2006, or the day after publication of the enacted bill, whichever is later.

Assembly Substitute Amendment 2

Assembly Substitute Amendment 2 does four things, as described below:

• Assembly Substitute Amendment 2 deletes the requirements of the bill that require the coding for electronic voting systems to be publicly available. Instead, Assembly Substitute Amendment 2 requires the Elections Board to determine which software components of an electronic voting system are necessary to enable review and verification of the accuracy of the automatic tabulating equipment used to record and tally the votes cast with the system. The Board must then require the vendor of each electronic voting system that is approved for use in this state to place those software components in escrow with the Board within 90 days of approval of the system and within 10 days of the date of any subsequent change in the components. The escrowed components are to be maintained in strict confidence, and are not subject to inspection under the Open Records law. However, if a valid petition for a recount is filed in an election at which an electronic voting system was used, each party to the recount may designate one or more persons who are authorized to receive access to the escrowed software used in that election. The designated persons may receive access to the relevant escrowed software if the persons agree in writing to maintain the confidentiality of all property information to which the person has access. Additionally, a county or municipality may contract with the vendor of an electronic voting system to permit a greater degree of access to software components used with that system. Finally, the Board is directed to promulgate administrative rules to ensure the security, review, and verification of software components used with each electronic voting system approved for use in this state. The verification procedure must include a determination that the software components correspond to the instructions actually used by the system to count votes.

• Assembly Substitute Amendment 2 removes the requirement of the bill that an electronic voting machine generate a complete paper ballot. Instead, Assembly Substitute Amendment 2 specifies that such a machine must generate *a complete, permanent paper record* showing all votes cast by each elector that is verifiable by the elector by either visual or nonvisual means (as appropriate), before the elector leaves the voting area.

• Assembly Substitute Amendment 2 adds a requirement that if electronic voting machines are used at an election, any recount of votes cast on such machines must be performed using the permanent paper record under current law of the votes cast, as generated by the machines.

• Assembly Substitute Amendment 2 *deletes the minimum font size requirement of paper ballots.* Accordingly, the minimum font size will be prescribed by the Elections Board.

Legislative History

Assembly Substitute Amendment 2 was offered on November 10, 2005, by Representatives Freese and Pocan and was adopted by the Assembly on the same day on a voice vote. The bill, as amended, was also passed by the Assembly on that day on a vote of Ayes, 91; Noes, 4.

RJC:jal

Jacque, Barton

From:	Michael Kerr [mkerr@itaa.org]
Sent:	Tuesday, November 29, 2005 7:38 AM
To:	Sen.Reynolds
Cc:	Sen.Lazich; Sen.Kanavas; Sen.Hansen; Sen.Carpenter
Subject:	ITAA Letter in Opposition to A.B. 627 and S.B. 296
Importance:	High
Attachments:	ITAA Letter to WI Senate Labor & Election Process Reform - 11.29.05.pdf; FINAL infographic.pdf

Chairman Reynolds:

I am writing on behalf of the members of the Information Technology Association of America (ITAA) and its Election Technology Council. ITAA is the oldest and largest trade association for America's information technology industry. Our 400 corporate members provide IT products and services to governments around the world, to every federal civilian and defense agency, and every state government in the United States.

I have attached a letter conveying our opposition to **A.B. 627** and **S.B. 296**, bills providing, in part, new software coding disclosure and escrow requirements for electronic voting systems. We believe the coding disclosure requirements in this proposed legislation are unnecessary, given the current rigorous and objective regimen of voting system testing and certification at the federal and state levels. A graphic providing an overview of those processes is attached. Further, public source code disclosure may create new security risks for Wisconsin elections and may make Wisconsin voting systems procurements less competitive, as vendors will be deterred by a risk to their proprietary software.

Thank you for considering our comments and I would be happy to follow up with you or your staff to discuss our concerns. I can be reached at 703.284.5324 or mkerr@itaa.org

Sincerely,

Michael Kerr

Cc: Members of the Senate Committee on Labor and Election Process Reform

---

Michael Kerr | Director, Election Technology Council
Information Technology Association of America
1401 Wilson Blvd., Ste. 1100 | Arlington, VA 22209
office: 703-284-5324 | fax: 703-525-2279
email: mkerr@itaa.org | www.itaa.org

Dedicated to promoting and growing your IT business.

ITAA

November 29, 2005

The Honorable Tom Reynolds
Chairman
Senate Committee on Labor and Election Process Reform
Room 306 South
State Capitol
Madison, Wisconsin 53707

Dear Chairman Reynolds:

I am writing on behalf of the members of the Information Technology Association of America (ITAA) and its Election Technology Council. ITAA is the oldest and largest trade association for America's information technology industry. Our members provide Information Technology (IT) products and services to governments around the world, to every federal civilian and defense agency, and every state government in the United States.

I am writing to convey our opposition to A.B. 627 and S.B. 296, bills providing new software coding disclosure and escrow requirements for electronic voting systems. In part, the legislation requires coding for software that is used to operate such systems to be publicly disclosed. The bills will also require each municipal clerk or board of election commissioners of a municipality that uses an electronic voting system to provide to any person, upon request, the coding for the software that the municipality uses to operate the system and to record and tally the votes cast.

The ITAA and its members urge you to significantly modify or remove the provisions relating to source code disclosure from this legislation. The provisions are both unnecessary and unlikely to deliver the intended outcomes. Indeed, the adoption of such requirements may create several negative outcomes for the state, which are discussed in the following paragraphs.

The provisions will not improve the efficiency or effectiveness of voting systems software inspection. Additional inspection and review of code by technical laypersons, with no ability to provide regulated feedback into the state election management process, is unlikely to improve the quality or security of the software. Our members would hold that current review processes allow all certification officials with a valid need to examine the software in a voting system to inspect that software. Such inspection is part of the established federal and state regimen of testing and certification for voting systems, which takes into account the election environment in which the system operates. To provide an overview of the complex and thorough federal and state testing requirements, ITAA developed a process flow diagram. The diagram, which we sent to Committee e-mail accounts this morning, illustrates the intensely-regulated independent testing and federal and state certification approval system that limits and controls the introduction of software and hardware improvements in the election environment.

Beyond the federal and state certification processes, the U.S. Election Assistance Commission (EAC) last year called on all voting systems vendors to voluntarily submit the executables of their proprietary voting system software to the National Software Reference Library (NSRL) to create a software repository from which state and local election administrators could verify the versions of software delivered to them. The voting system vendors agreed. Today, the NSRL contains voting systems software for most types of electronic voting systems used in this country.

The provisions in the bills under consideration will do more harm than good to the security of Wisconsin elections. A single-minded focus on the quality of software code will not improve the overall election security picture in the state. In fact, it may be detrimental to security. Today, a vulnerability in voting systems software can be recognized and mitigated in a well-managed election environment. However, the injection of a new vulnerability exposed to a larger pool of attackers will magnify the potential for risk.

Another poor outcome will be the harm done to the voting systems business of several major American software concerns, including those who have served the State of Wisconsin, and its counties and cities, loyally for years. Vendors faced with a mandate to divulge their Intellectual Property, a core asset of any IT business in which significant investment has been made over many years, will see a reduced incentive to compete for the State's business. Ours is a free-market system and those states creating greater risk for vendors, or placing restrictions or barriers on their voting systems markets, are making those markets less attractive. Vendors may elect to look elsewhere for lower levels of risk.

Ultimately, this legislation presents many unanswered questions and creates many concerns for vendors and elections officials, without delivering a tangible benefit to the vast majority

of the people of Wisconsin.   Again, we urge you to reconsider and revise the provisions relating to software code disclosure.   We would be happy to discuss our concerns with you and your staff at any time. Michael Kerr, Director of ITAA's Election Technology Council, is the staff contact and can be reached at 703.284.5324 or mkerr@itaa.org.

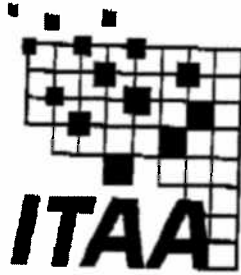Thank you for considering our comments.

Sincerely,

Harris N. Miller
ITAA President

Cc: Members of the Senate Committee on Labor and Election Process Reform

Information Technology Association of America   3
1401 Wilson Blvd. - Suite 1100, Arlington, Virginia 22209-2318 ■ Phone: (703) 522-5055 Fax: (703) 525-2279

** TOTAL PAGE.04 **

Information Technology Association of America
Enterprise Solutions Division

Facsimile Cover Page

FROM:

Michael Kerr
Director, ES Division
ITAA

Direct:	**703-284-5324**
Fax:	**703-525-2279**
Email:	**mkerr@itaa.org**

TO: Chairman Tom Reynolds

ORGANIZATION: _____

FAX #: 608-267-0367 _____ **PHONE #** _____

DATE: 11/29/05 _____ **PAGES:** 4 _____

SUBJECT: _____

MESSAGE:

_____

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Visit us on the World Wide Web at:
http://www.itaa.org/es

1401 Wilson Boulevard, Suite 1100
Arlington, Virginia 22209-2318
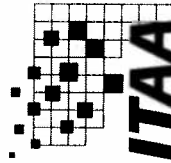**PH: 703-522-5055**
FAX: 703-525-2279

Voting System Independent Testing and Certification Process:

Comprehensive, Rigorous, and Objective

Prepared by:

The Election Technology Council

November 2005

About The Election Technology Council

The Election Technology Council (ETC) is a group of companies that offer products and services which support the electoral process and have decided to work together to address common issues facing their industry. These companies believe that the voting infrastructure in the United States is in pressing need of improvement, and that electronic systems introduce new levels of voting inclusiveness, accuracy, efficiency, and accessibility. Working together as a division of the Information Technology Association of America (ITAA), ETC members will help election officials, lawmakers, voters, the media and others understand and better appreciate the benefits that technology can bring to the voting process.

Founding members of the ETC are: Advanced Voting Systems, Diebold Election Systems, Election Systems & Software, Hart InterCivic, Sequoia Voting Systems, and Unilect Corporation. The Council has been joined by Danaher Guardian Voting Systems, VoteHere, and Perfect Voting System.

The Council affirms its complete support for voting systems testing and certification. Trust in the American system of elections is of paramount importance to our members, as it is to all parties working in the elections community. Thorough testing and review in order to provide valid certification is an important component of that trust. Hence, the Council has resolved to offer its members' experience and insights on testing and certification to those parties undertaking a review of the certification process.

The Information Technology Association of America (ITAA) provides global public policy, business networking, and national leadership to promote the continued rapid growth of the IT industry. ITAA consists of over 350 corporate members throughout the U.S.. The Association plays the leading role in issues of IT industry concern including information security, taxes and finance policy, digital intellectual property protection, telecommunications competition, workforce and education, immigration, online privacy and consumer protection, government IT procurement, human resources and e-commerce policy. ITAA members range from the smallest IT start-ups to industry leaders in the Internet, software, IT services, ASP, digital content, systems integration, telecommunications, and enterprise solution fields. ITAA is secretariat of the World Information Technology and Services Alliance, consisting of 67 IT trade associations around the world.

For more information visit www.itaa.org.

Voting System Independent Testing & Certification Process:

Comprehensive, Rigorous, and Objective

New and improved voting technology has made the election process easier, more accessible, and more secure. These enhancements benefit election administrators and voters, and encourage participation in our democracy. As technology has evolved, so, too, have procedures that ensure voting equipment deployed on Election Day is reliable, accurate, and secure. This overview depicts the comprehensive, rigorous, and objective voting system testing and certification process - at the federal, state, and local levels.

1. Standards Development:

Current and evolving state and federal law, regulations, and standards define requirements that must be met before voting equipment may be used in an election. Today, the federal 2002 Voting Systems Standards provide guidance to vendors and the system-testing bodies. New standards - the Voluntary Voting System Guidelines - are currently under development.

1a. Product Development & Quality Assurance:

Election systems manufacturers continually conduct new product development to enhance current voting equipment and innovate the next generation of voting technology. This development process is driven by state and federal laws/standards that establish specific voting system requirements. It is also responsive to the needs of election administrators and voters.

2. To ITA Testing:

After development, documentation, and quality assurance, to be certified to federal voting systems standards, a voting system and its component parts must go through extensive testing conducted by accredited Independent Testing Authorities (ITAs). This process begins with submission of a detailed Technical Data Packet (TDP) from the vendor.

2a. Source Code:

ITAs review every line of software code to ensure compliance with standards and overall integrity. Once complete, an ITA will perform and witness the compilation of the source code into program executable files.

2b. Functionality:

ITAs test the functionality of the voting equipment using compiled code to ensure it operates accurately - that votes are properly captured, results are properly reported, and data is properly retained. To pass, a system must tabulate 1.5 million voters with 100% accuracy.

2c. Durability:

ITAs test the operation of the voting equipment to ensure it can withstand extreme environmental conditions and intensive human handling.

3. ITA Reports:

If, at any point in the testing process, an ITA identifies an issue that must be addressed, a product or component part is sent back to the vendor for additional development and resubmission through the whole ITA testing process. Only after the system or component has passed every test is it deemed qualified for federal certification. An ITA compiles the results of the entire testing process into a report which is delivered to the EAC/NASED for further review.

4. EAC/NASED Review

The NASED technical committee assesses the results of the ITA tests to ensure compliance with federal law and standards. If necessary, NASED requests clarification from the ITA and/or additional development by the vendor. Only if a system passes this review does NASED issue a number indicating formal federal certification of the specific version of the voting system.

5. State Testing & Certification

In a majority of states, federal certification is only a first step before a voting system can achieve state certification. In some cases, the state will carry out its own independent testing of the accuracy, security, and reliability of a system. State testing (which varies state-to-state) expands upon and enhances testing at the federal level. A state also will compare a product's features and functionality against state law and standards to ensure it complies.

5a. State Software Escrow

Many states require the vendor to escrow a copy of the certified system software.

6. Local Testing

After production testing and upon delivery from a vendor, local election authorities conduct acceptance testing to ensure the voting system equipment performs properly and is certified. Further still, prior to every election, local authorities test the logic and accuracy of the equipment and procedures with election-specific ballots to confirm it functions properly and is secure.

7. National Software Reference Library

After software is federally certified, election system vendors can voluntarily submit the executable code to the National Software Reference Library, which archives a validation code for future reference. This allows jurisdictions to verify the delivered system software against the archived validation code to ensure it is the certified version.

FORWARD

E PLURIBUS UNUM
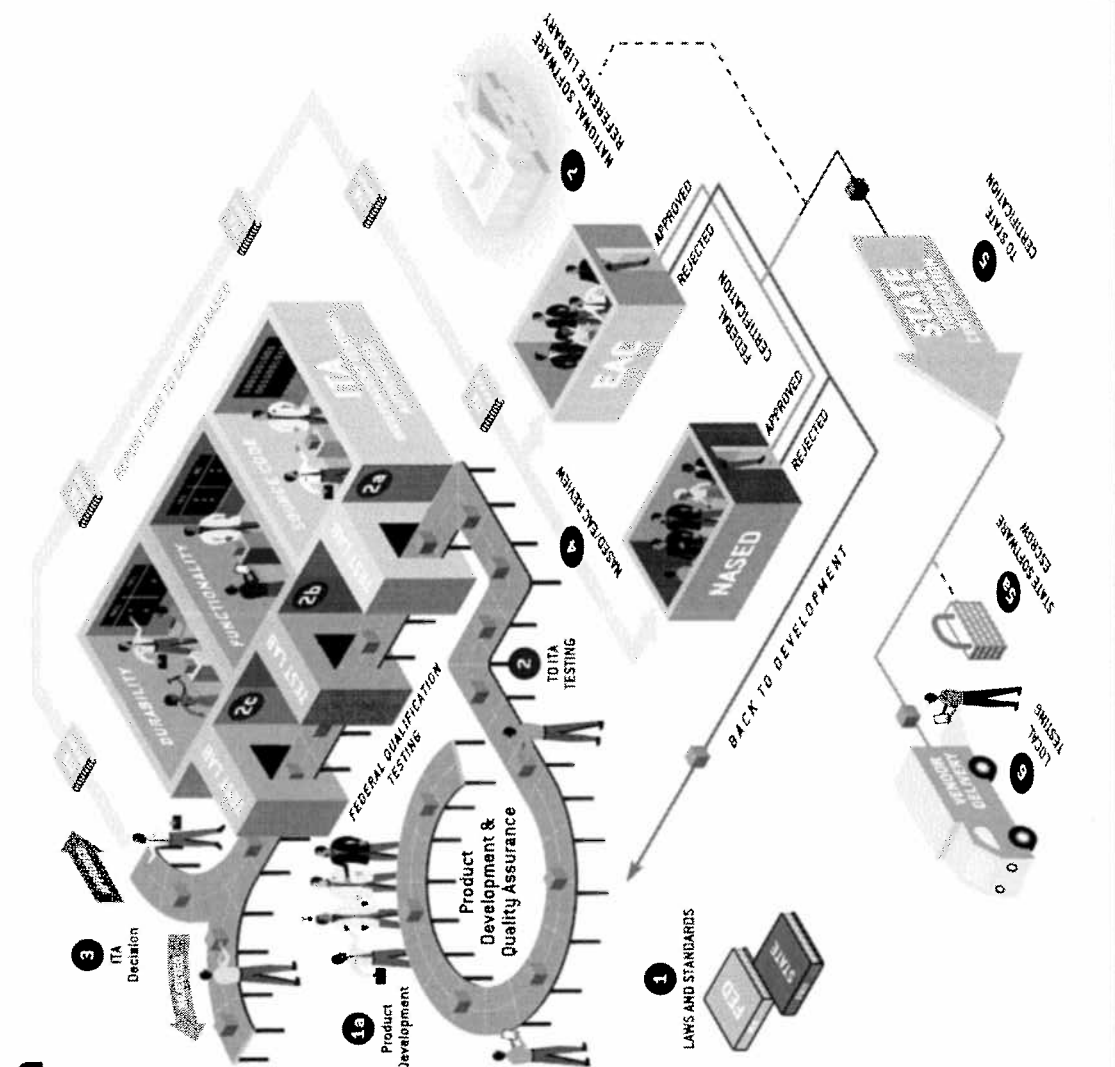
To: Senate Committee on Labor and Election Process Reform
Date: November 29, 2005
Re: AB-627

This bill with its bipartisan support is a good indicator that across Wisconsin there is considerable concern that we have a paper ballot. People are leery of the computerized voting machines that may be in Wisconsin's future.

In September, the non-partisan US Government Accountability Office (GAO) issued a lengthy report that summarized the flaws in the computerized voting machines that are now being sold. These machines have made some big errors that *have* been caught. There have probably been other major errors that have *not* been caught. The GAO report discusses the security flaws that have been exposed. This equipment in general is susceptible to malicious people who would disrupt our elections. The conclusion of the GAO is that we have quite a ways to go before this computerized equipment is secure.

In the meantime, this bill (Assembly Substitute Amendment 2 that was passed by the Assembly) is step forward. However, the bill does not go far enough. On page 3, line 18, it calls for a recount using the permanent paper record. But the paragraph above it is left intact. This existing language in line 9 allows the board of canvassers to use automatic tabulating equipment for recounts. This should be changed so that Wisconsin's recounts are done by a *manual* count of the ballots.

Manual recounts of the paper record is the only way that voter intent can truly be determined if the voter has strayed from standard instructions when the ballot is filled out. Statute 7.50 describes in detail our procedure to ascertain the voter's intent. A 20 page study published in May in the Journal of Politics found that manually counting the ballots resulted in the lowest rate of uncounted ballots, when compared to optical scan, lever machines, DRE's and punch cards.

A manual recount is the only way to ensure that a major electronic snafu (intentional or unintentional) does not disrupt the accuracy of the count of votes. Manual recounts of the paper ballots will maintain voter confidence in our election results.

On behalf of Fair Elections Wisconsin
Paul Malischke
4825 Bayfield Terrace
Madison, WI 53705
malischke@yahoo.com

ELECTIONS

Federal Efforts to Improve Security and Reliability of Electronic Voting Systems Are Under Way, but Key Activities Need to Be Completed

Why GAO Did This Study

The Help America Vote Act of 2002 established the Election Assistance Commission (EAC) to help improve state and local administration of federal elections and authorized funding for state and local governments to expand their use of electronic voting systems. EAC began operations in January 2004. However, reported problems with electronic voting systems have led to questions about the security and reliability of these systems. GAO was requested to (1) determine the significant security and reliability concerns identified about electronic voting systems, (2) identify recommended practices relevant to ensuring the security and reliability of these systems, and (3) describe actions taken or planned to improve their security and reliability.

What GAO Recommends

To help ensure the security and reliability of electronic voting systems, GAO is recommending that EAC define specific tasks, processes, and time frames for improving the national voting systems standards, testing capabilities, and management support available to state and local election officials. In commenting on a draft of this report, EAC agreed with the recommendations and stated that the commission has initiatives under way or planned in these areas. The commission also sought additional clarification and context on reported problems.

www.gao.gov/cgi-bin/getrpt?GAO-05-956.

To view the full product, including the scope and methodology, click on the link above. For more information, contact David Powner at (202) 512-9286 or pownerd@gao.gov.

What GAO Found

While electronic voting systems hold promise for improving the election process, numerous entities have raised concerns about their security and reliability, citing instances of weak security controls, system design flaws, inadequate system version control, inadequate security testing, incorrect system configuration, poor security management, and vague or incomplete voting system standards (see below for examples). It is important to note that many of these concerns were based on specific system makes and models or a specific jurisdiction's election, and there is no consensus among election officials and other experts on their pervasiveness. Nevertheless, some have caused problems in elections and therefore merit attention.

Federal organizations and nongovernmental groups have issued both election-specific recommended practices for improving the voting process and more general guidance intended to help organizations manage information systems' security and reliability. These recommended practices and guidelines (applicable throughout the voting system life cycle) include having vendors build security controls and audit trails into their systems during development, and having election officials specify security requirements when acquiring systems. Other suggested practices include testing and certifying systems against national voting system standards.

The federal government has begun efforts intended to improve life cycle management of electronic voting systems and thereby improve their security and reliability. Specifically, EAC has led efforts to (1) draft changes to existing federal voluntary standards for voting systems, including provisions addressing security and reliability; (2) develop a process for certifying voting systems; (3) establish a program to accredit independent laboratories to test electronic voting systems; and (4) develop a library and clearinghouse for information on state and local elections and systems. However, these actions are unlikely to have a significant effect in the 2006 federal election cycle because important changes to the voting standards have not yet been completed, the system certification and laboratory accreditation programs are still in development, and a system software library has not been updated or improved since the 2004 election. Further, EAC has not consistently defined specific tasks, processes, and time frames for completing these activities; as a result, it is unclear when their results will be available to assist state and local election officials.

Examples of Voting System Vulnerabilities and Problems

- Cast ballots, ballot definition files, and audit logs could be modified.
- Supervisor functions were protected with weak or easily guessed passwords.
- Systems had easily picked locks and power switches that were exposed and unprotected.

- Local jurisdictions misconfigured their electronic voting systems, leading to election day problems.
- Voting systems experienced operational failures during elections.
- Vendors installed uncertified electronic voting systems.

Source: GAO analysis of recent reports and studies.

_____United States Government Accountability Office

FORWARD

E PLURIBUS UNUM

To: Senate Committee on Labor and Election Process Reform

Date: November 29, 2005

Re: AB-627

It is my belief, and likely that of many Wisconsinites, that the citizenry of this state will not have confidence in our electoral system without an adequate paper trail that will allow for a secure recount where an election is contestable.

I am glad that AB-627 has been offered to start to address this concern. Computerized voting without an adequate paper trail is not secure at all.

I hope that all of the members of this committee have read the GAO report (d05956): *"Federal Efforts to Improve Security and Reliability of Electronic Voting Systems Are Under Way, but Key Activities Need to Be Completed. "*

This report identifies some significant problems with security of the existing electronic voting machines being considered by this state and others. This report and research done on already purchased in California demonstrate that the current generation of machines are anything but secure and reliable/durable. This it is important in this time of fast movement of our government to require electronic machines that we have an adequate paper trail process and that these paper ballots become the defacto recount source.

Thus, while I am supporting this bill because the present approaches and requirements are not adequate and secure, I am convinced that this bill does not go far enough. For example, on page 3, line 18, it calls for a recount using the *"permanent paper record"*. This weak language would allow the use of automatic tabulating equipment for recounts. This often simple lists of the electronic memory does not adequately protect against fraud within the machines. The language ultimately should be changed to require manual counts of actual ballots that the voters would have verified after voting. This is the only way we can have and "adequate" paper trail.

Manual recounts of the voter verified paper ballots will be required to maintain voter confidence in our election results.

While I urge you to pass this bill as a first best effort, I more strenuously urge you to revisit the language in the near future to amend the language to ensure that recounts are based on individual voter-verified ballot printouts.

Thank you for considering my concerns.

George Penn, Madison

WISCONSIN LEGISLATURE

P.O. BOX 8952 • MADISON, WI 53708

December 9, 2005

Kevin Kennedy, Executive Director
Wisconsin State Elections Board
17 West Main Street, Suite 310
PO Box 2973
Madison, Wisconsin 53701-2973

Dear Kevin:

We are writing regarding the approval process for voting equipment. It has been brought to our attention that the Wisconsin State Elections Board has delayed the start of the approval process for numerous vendors until after the National Association of State Election Directors (NASED) has issued their certification number.

We understand The Wisconsin State Elections Board has promulgated a set of administrative rules to establish the process for the approval of electronic voting equipment in Wisconsin. Specifically, the administrative rules require that the vendor must submit a copy of a report from an independent testing authority approved by NASED specifying that the equipment has been qualified to meet the current 2002 standards established by the Election Assistance Commission. The administrative rules do not dictate that the vendors must wait for a NASED certification number to begin the process.
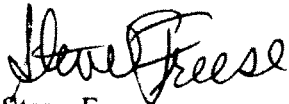
We believe that given the current timeline of approving vendors to compete in this state, the SEB should allow vendors to begin the approval process after receiving and submitting the report from an independent testing authority (ITA) as written in the administrative rule. The current approval process is too rigid and waiting for a NASED number is nothing more than red tape that can be eliminated to speed up the process.

It is our intention that the SEB modifies the current approval process to allow vendors to begin immediately upon receipt of the ITA complete functional testing report. If the SEB is not willing to change this internal policy, we are prepared to introduce legislation immediately and will work to make this requirement statutory.
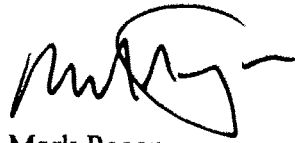
We all have the same goal in mind to enhance representative democracy by ensuring the integrity of the electoral process and believe that this small policy change will work toward our mutual goals.

Thank you very much for your immediate attention to this request. We look forward to your response.

Sincerely,

Steve Freese
State Representative, 51st District
Chair, Assembly Campaigns
    & Elections Committee

Mark Pocan
State Representative, 78th District

Tom Reynolds
State Senator, 5th District
Chair, Senate Committee on Labor
    & Election Reform

Jeff Plale
State Senator, 7th District

FORWARD

SENATOR JEFF PLALE
SEVENTH SENATE DISTRICT

STATE CAPITOL
P.O. BOX 7882
MADISON, WI 53707-7882

(608) 266-7505
(800) 361-5487
SEN.PLALE@LEGIS.STATE.WI.US

Senator Tom Reynolds
Chair, Senate Committee on Labor and Election Process Reform
306 South, State Capitol
Madison, WI 53701
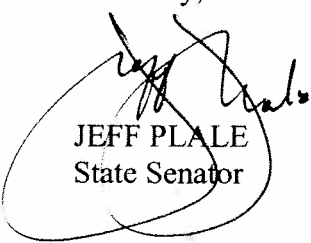**HAND DELIVERED**

Dear Chairman Reynolds,

 I am writing to request that you schedule Assembly Bill 627, The Electronic Voting Reform Act, for a public hearing in your committee as soon as possible.

 I was very pleased that you agreed to co-sponsor this measure. I know you share my conviction that this is a necessary step to safeguarding the integrity of Wisconsin Elections. The time for this legislation is right now. The voters of this state expect to see some real reform enacted to protect their vote. You have the opportunity to move this legislation forward.

 Clearly there is substantial legislative and public support for this measure. As you are aware the Bill passed the Assembly by an overwhelming 91-4 majority last week. Voters of both parties view this legislation as critical to protecting the sanctity of Wisconsin's electoral process. I ask you again to please bring this bill up for a vote in the Committee on Labor and Election Process Reform at the earliest opportunity.

 Thank you for your consideration. Please do not hesitate to contact me if you have any additional questions.

Sincerely,

JEFF PLALE
State Senator

Pat, Let's talk about this

FORWARD

ASSEMBLY SUBSTITUTE AMENDMENT 2,

TO 2005 ASSEMBLY BILL 627

November 10, 2005 – Offered by Representatives FREESE and POCAN.

1   AN ACT *to amend* 5.51 (1), 5.84 (title), 5.90 and 5.91 (18); and *to create* 5.905

2   of the statutes; **relating to:** the size of type for text printed or displayed on

3   ballots, electronic voting system standards, recount procedures, and software

4   components, and granting rule–making authority.

Analysis by the Legislative Reference Bureau

Currently, the form of ballots at elections is prescribed by the Elections Board in accordance with statutory requirements. The type size for text that is printed or displayed on the ballots may be no smaller than 8 point. This is 8–point type. This substitute amendment deletes the minimum type size requirement.

Currently, with limited exceptions, every municipality with a population of 7,500 or more must use voting machines or an electronic voting system at all primaries and other elections held in the municipality. Either mechanical or electronic voting machines may be used. No electronic voting system, including an electronic voting machine, may be used unless the system meets statutory standards and is approved by the State Elections Board for use at elections held in this state. The system must enable an elector to privately verify the votes selected by the elector before casting his or her ballot. All electronic voting systems must be tested publicly before each election to determine if they are functioning properly. If voting machines are used, ballots need not be printed and distributed to electors, but if electronic

voting machines are used, the machines must maintain a cumulative tally of votes cast that is retrievable in the event of a power outage, evacuation, or malfunction so that the record of the votes cast prior to the time that the problem occurs is preserved, and the machines must produce a permanent paper of record of the vote cast by each elector at the time that it is cast that enables a manual count or recount of the elector's vote. Currently, there is no requirement pertaining to accessibility or independent verification of software that is used to operate a system or to record and tally the votes cast.

This substitute amendment provides that if a municipality uses an electronic voting system that consists of a voting machine, the machine must generate a complete, permanent paper record showing all votes cast by each elector, that is verifiable by the elector, by either visual or nonvisual means as appropriate, before the elector leaves the voting area, and that enables a manual count or recount of each vote cast by the elector.

Currently, recounts of elections held at polling places utilizing electronic voting machines are performed in accordance with the procedures for recounting votes cast on mechanical voting machines, except as otherwise provided. This substitute amendment provides that if an electronic voting machine is used at a polling place, the board of canvassers must perform the recount using the permanent paper record showing the votes cast by each elector, as generated by the machines.

The substitute amendment also directs the Elections Board to promulgate rules to ensure the security, review, and verification of software components used with each electronic voting system approved by the board for use at elections in this state. Under the substitute amendment, the board must require each vendor of an electronic voting system to place its software components in escrow with the board. The substitute amendment prohibits the board from providing access to the components to any person except in a recount of an election. If a valid petition for a recount is filed in an election in which an electronic voting system is used to record and tally the votes cast, the board must provide access to the software components used to record and tally the votes to one or more persons designated by each party to the recount if each designee first enters into an agreement with the board under which the designee agrees to maintain the confidentiality of all proprietary information provided to the designee. The substitute amendment permits a county or municipality to contract with the vendor of an electronic voting system to permit a greater degree of access to software components used with the system than is otherwise authorized under the substitute amendment.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

1   SECTION 1. 5.51 (1) of the statutes is amended to read:

2   5.51 **(1)** The type face used on all paper ballots shall be easy to read, and the

3   type size may be no smaller than 8 point.

2005 – 2006 Legislature   – 3 –   LRBs0305/1
JTK:kjf:pg
SECTION 2

1   SECTION 2. 5.84 (title) of the statutes is amended to read:

2   **5.84** (title) **Testing of equipment;** ~~custody of~~ **requirements for programs**

3   **and ballots.**

4   SECTION 3. 5.90 of the statutes is amended to read:

5   **5.90 Recounts.** Except as otherwise provided in this subchapter, recounts of

6   votes cast on an electronic voting system shall be conducted in the manner prescribed

7   in s. 9.01. If the ballots are ~~in readable form~~ <u>distributed to the electors</u>, the board

8   of canvassers may elect to recount the ballots without the aid of automatic tabulating

9   equipment. If the board of canvassers elects to use automatic tabulating equipment,

10   the board of canvassers shall test the automatic tabulating equipment to be used

11   prior to the recount as provided in s. 5.84, and then the official ballots or the record

12   of the votes cast shall be recounted on the automatic tabulating equipment. In

13   addition, the board of canvassers shall check the ballots for the presence or absence

14   of the initials and other distinguishing marks, shall examine the ballots marked

15   "Rejected", "Defective" and "Objected to" to determine the propriety of such labels,

16   and shall compare the "Duplicate Overvoted Ballots" and "Duplicate Damaged

17   Ballots" with their respective originals to determine the correctness of the

18   duplicates. <u>If electronic voting machines are used, the board of canvassers shall</u>

19   <u>perform the recount using the permanent paper record of the votes cast by each</u>

20   <u>elector, as generated by the machines.</u>

21   SECTION 4. 5.905 of the statutes is created to read:

22   **5.905 Software components. (1)** In this section, "software component"

23   includes vote–counting source code, table structures, modules, program narratives

24   and other human–readable computer instructions used to count votes with an

25   electronic voting system.

1   **(2)** The board shall determine which software components of an electronic

2   voting system it considers to be necessary to enable review and verification of the

3   accuracy of the automatic tabulating equipment used to record and tally the votes

4   cast with the system. The board shall require each vendor of an electronic voting

5   system that is approved under s. 5.91 to place those software components in escrow

6   with the board within 90 days of the date of approval of the system and within 10 days

7   of the date of any subsequent change in the components. The board shall secure and

8   maintain those software components in strict confidence except as authorized in this

9   section. Unless authorized under this section, the board shall withhold access to

10   those software components from any person who requests access under s. 19.35 (1).

11   **(3)** The board shall promulgate rules to ensure the security, review and

12   verification of software components used with each electronic voting system

13   approved by the board. The verification procedure shall include a determination that

14   the software components correspond to the instructions actually used by the system

15   to count votes.

16   **(4)** If a valid petition for a recount is filed under s. 9.01 in an election at which

17   an electronic voting system was used to record and tally the votes cast, each party

18   to the recount may designate one or more persons who are authorized to receive

19   access to the software components that were used to record and tally the votes in the

20   election. The board shall grant access to the software components to each designated

21   person if, before receiving access, the person enters into a written agreement with

22   the board that obligates the person to exercise the highest degree of reasonable care

23   to maintain the confidentially of all proprietary information to which the person is

24   provided access, unless otherwise permitted in a contract entered into under sub. (5).

2005 – 2006 Legislature   – 5 –   LRBs0305/1
JTK:kjf:pg
SECTION 4

1   **(5)** A county or municipality may contract with the vendor of an electronic

2   voting system to permit a greater degree of access to software components used with

3   the system than is required under sub. (4).

4   **SECTION 5.** 5.91 (18) of the statutes, as created by 2003 Wisconsin Act 265, is

5   amended to read:

[handwritten: Doesn't require that it go with you paper audit]

6   5.91 **(18)** ~~It produces a permanent paper record of the vote~~ If the device consists

7   of an electronic voting machine, it generates a complete, permanent paper record

8   showing all votes cast by each elector ~~at the time that it is cast~~/that is verifiable by

9   the elector, by either visual or nonvisual means as appropriate, before the elector

10   leaves the voting area, and that enables a manual count or recount of ~~the elector's~~

11   each vote cast by the elector.

[handwritten: This is used in recounts. Practical problem counting 1M piece of paper.]

[handwritten: – 3 machines being approved by SEB can do this (by diff. means)]

12   **SECTION 6. Nonstatutory provisions.**

13   (1) Each vendor of an electronic voting system that is approved for use in this

14   state under section 5.91 of the statutes on the effective date of this subsection or that

15   obtains such approval for its system before the effective date of rules promulgated

16   by the board under section 5.905 (3) of the statutes, as created by this act, shall

17   provide to the elections board the software components required under section 5.905

18   (2) of the statutes, as created by this act, no later than 90 days after the effective date

19   of those rules.

20   **SECTION 7. Initial applicability.**

21   (1) This act first applies with respect to elections held on the effective date of

22   this subsection.

23   **SECTION 8. Effective date.**

1   (1) This act takes effect on January 1, 2006, or the day after publication,

2   whichever is later.

3   **(END)**