

1. The New York State Board of Elections intends to approve for use at elections in New York State conducted after September 1, 2008, ballot marking devices (BMD) that meet the accessibility provisions of the Help America Vote Act of 2002 (Public Law 107-252) and the provisions contained herein.

2. In order for a BMD to be considered for approval by the State Board for use, it shall comply with the minimum requirements stated herein:
 - 2.1. All capabilities to electronically record or tabulate a vote must be disabled or absent.
 - 2.2. **Accessibility provisions for usability by voters who are disabled:**
 - 2.2.1. Be constructed to allow a voter with disabilities to mark his or her vote choices on a paper ballot.
 - 2.2.2. Permit inspectors of elections to easily and safely place the BMD in an accessible position.
 - 2.2.3. Be equipped with a voting device with tactile discernible controls, designed pursuant to Election Law Section 7-202 to meet the needs of voters with limited reach and/or hand dexterity, allow them the ability to mark their ballot, and shall include, for example: raised buttons of different shapes and colors, large or raised numbers or letters, and light pressure switches.
 - 2.2.4. Be equipped with an audio voting feature, pursuant to Election Law Section 7-202. The audio feature shall be able to be used either independently or simultaneously with the on-screen display.

The audio voting feature shall allow for the complete content of the ballot in all required languages, to be communicated to the voter in a voice which permits a voter who is blind or visually impaired to mark a secret ballot using voice-only or tactile discernible controls. The audio voting feature shall include a feature that, if selected, will allow a voter to control the volume of the voice within the ranges contained in the 2005 Voluntary Voting System Guidelines.

2.2.5. Be equipped with a pneumatic switch voting attachment which can be operated orally by gentle pressure or the creation of a vacuum through the inhalation or exhalation of air by the voter including, but not limited to, a sip-and-puff switch voting attachment.

2.2.6. Vendors shall provide documentation, cost information and sources for any additional accessibility devices which may work in conjunction with their proposed system, including but not limited to rocker paddles, if available.

2.3. Ballot provisions:

2.3.1. As to the printing and arrangement of ballots, all ballots shall meet the requirements as to form and content provided in the Election Law.

2.3.1.1. Print a paper ballot that conforms to Election Law Sections 7-104 and 7-121, and any other applicable

provisions of statute, and that such ballot is easily visible under typical lighting found in a poll site.

- 2.3.2. Ballots shall be printed in black print on a white background and, in the case of a primary, allow for only the identification portion of the ballot to appear in different colors to identify, each political party according to the color assigned to such party pursuant to law.
- 2.3.3. Ballots shall include machine-readable code and also human-readable code, to identify different ballot styles.
- 2.3.4. The types of ballots used and their form, type size and arrangement must be approved by the State Board of Elections.

2.4. Provisions for noise level:

2.4.1.1. BMDs shall be constructed in a manner so that noise levels of the system or equipment during operation will not interfere with the duties of the election inspectors or the voting public.

2.4.1.2. The noise level of write-in components of the BMD shall be so minimal that it will be virtually impossible under normal conditions for someone at the table used by the inspectors of elections to determine that a write-in vote is being marked or has been marked.

2.5. Provisions for voter privacy:

2.5.1. The BMD shall be constructed so that no one within the polling site will be able to see how a voter is marking their ballot.

2.5.1.1. The BMD shall be provided with a curtain, screen, shield or other privacy device, which shall allow voters with a range of disabilities to, either electronically or manually, open, close or otherwise use the device with ease when entering and exiting the BMD.

2.5.1.2. The privacy and anonymity of all voters shall be preserved during the process of marking and verifying ballot choices.

2.5.1.3. The privacy and anonymity of all voters whose paper records contain any of the alternative languages chosen for making ballot selections shall be maintained.

2.5.2. Information for the purposes of auditing paper records that may permit a voter to reveal his or her ballot choices shall be displayed so as not to be memorable to the voter.

2.6. Ballot Marking Device integrity and security:

2.6.1. Not include any device or functionality potentially capable of externally transmitting or receiving data via the internet or via radio waves or via other wireless means.

2.6.2. The BMD must be secure against attempts to interfere with correct system operation. The vendor shall identify each potential point of attack. For each potential point of attack, the vendor shall identify the technical safeguards embodied in the BMD to defend against attack, and the procedural safeguards that the vendor has

recommended be followed by the election administrators to further defend against that attack. Each defense shall be classified as preventative, if it prevents the attack in the first place; detective if it allows detection of an attack; or corrective if it allows correction of the damage done by an attack. Security requirements and provisions shall include the ability of the system to detect, prevent, log and recover from the broad range of security risks identified. These procedures shall also examine system capabilities and safeguards claimed by the vendor to prevent interference with correct system operations. The NYSBOE, with the assistance of a contractor(s), shall conduct tests to confirm that the security requirements defined herein have been completely addressed. Notwithstanding any other provisions of these requirements, the NYSBOE shall determine whether all or a portion of such security requirements and security provisions shall be available for public inspection, but shall exclude any information which compromises the security of the BMD.

2.6.3. The BMD shall contain software and hardware required to perform a diagnostic test of system status, to demonstrate that the system is fully operational and that all voting positions are operable.

2.6.4. The BMD printers shall be physically secure from tampering.

2.6.5. The BMD shall communicate with its printers over a standard, publicly documented printer port using a standard communication protocol.

2.6.6. The printer shall not be permitted to communicate with any other system or machine other than the single BMD to which it is connected.

2.6.7. The printer shall only be able to function as a printer: it cannot store information or contain or provide any services that are not essential to system function, (e.g., provide copier or fax functions) or have network capability.

2.6.8. Printer access to replace consumables such as ink or paper shall only be granted if it does not compromise the sealed printer paper path.

2.6.9. The BMD shall provide for the ability for poll workers, prior to the opening of polls on election day, to demonstrate that the ballot storage devices are empty.

2.6.10. Tamper-evident seals or physical security measures shall protect the connection between the printer and the BMD, so that the connection cannot be broken or interfered with without leaving extensive and obvious evidence.

2.6.11. The BMD's printers shall be highly reliable and easily maintained.

2.6.12. The BMD shall include a printer port to which a commercial off-the-shelf printer could be attached for the purposes of printing paper records and any additional records.

2.6.13. The BMD shall detect errors and malfunctions such as paper jams or low supplies of consumables such as paper and ink that may prevent paper records from being correctly displayed and printed.

2.6.14. If an error or malfunction occurs, the BMD attached to the malfunctioning printer shall suspend ballot marking operations and shall present a clear indication to the voter and election workers of the error or malfunction.

2.6.15. The vendor shall provide estimated quantities of supplies of consumable items such as paper and printer ink necessary to operate from opening to closing of polls for each fifty (50) ballots voted.

2.6.15.1. The vendor shall also provide cost and contact information for procurement of supplies of consumable items necessary to operate the device.

2.6.16. Printing devices should contain paper and ink of sufficient capacity so as not to require reloading or opening equipment covers or enclosures and circumventing security features, or reloading shall be able to be accomplished with minimal disruption to voting and without circumvention of security features such as seals.

- 2.6.17. Vendor documentation shall include specifications regarding the temperature and humidity ranges specified by the manufacturer for the storage of printer consumables.
- 2.6.18. Vendor documentation shall include procedures for investigating and resolving malfunctions including but not limited to unreadable paper records, paper jams, low ink, misfeeds and power failures.
- 2.6.19. Vendor documentation shall include procedures for ensuring, in the case of malfunctions, that paper records are correctly marked.
- 2.6.20. Protective coverings intended to be transparent on BMDs shall be maintainable via a predefined cleaning process.
- 2.6.21. The paper record shall be sturdy, clean, and of sufficient durability to be used for manual tabulation. The paper record shall be able to be stored and remain fully readable without degradation for 22 months within the temperature and humidity ranges specified by the manufacturer, but at a minimum temperature range of at least from -20 degrees to 140 degrees Fahrenheit, and at a humidity as high as 98%.

2.7. In addition to the requirements above, a BMD shall meet the following provisions:

- 2.7.1. Be constructed so as to allow for a voter to mark a paper ballot for all candidates who may be nominated and on all ballot proposals which may be submitted.

- 2.7.2. The BMD shall provide a method for a voter to mark a paper ballot indicating their selection for any person for any office, whether or not nominated as a candidate (write-in) by any party or independent body.
- 2.7.3. Be constructed so that a voter cannot mark a ballot for a candidate or for a ballot proposal for whom or on which he or she is not lawfully entitled to vote.
- 2.7.4. The BMD must prevent voters from over-voting and indicate to the voter specific contests or ballot issues for which no selection or an insufficient number of selections has been made, and provide the voter with the opportunity to correct the ballot before the ballot is marked.
- 2.7.5. Provide an opportunity such that any voter, including voters who are blind or visually impaired, may privately and independently verify their selections and the ability to privately and independently change such selections or correct any error before the ballot is marked.
- 2.7.6. Provide a feature to permit a voter to independently verify their paper ballot after it has been marked, including voters who are blind or visually impaired.
- 2.7.7. Be provided with a lock or locks, or other device or devices, the use of which, immediately after the polls are closed or the operation of the BMD for such election is completed, will

absolutely secure the BMD and prevent the marking of additional ballots.

2.7.8. Be provided with sufficient space to display the ballot definition information required herein, provided, however, in the alternative, such information may be displayed within the official ballot;

2.7.9. Retain all paper ballots marked or produced in a manner intended and designed to protect the privacy of the voter. Such ballots shall allow for manual tabulation and shall be preserved in accordance with the provisions of Section 3-222 of the Election Law.

2.7.10. Provide sufficient illumination to enable the voter to see the ballot.

2.7.11. Contain a device which enables all the election inspectors and poll watchers at such polling place to determine when the BMD has been activated for voting and when the voter has completed marking his or her ballot.

2.7.12. Permit the primaries of at least five parties to be conducted at a single election utilizing the BMD, and accommodate such number of different ballot styles at a single election as may be required by the New York State Board of Elections and/or the county board of elections.

2.7.13. Be capable of conducting both pre-election and post-election testing of the BMD that demonstrates accurate ballot layout presentation and the ability to accurately mark ballots reflecting the choices made by voters.

2.7.14. Permit alternative language accessibility pursuant to the requirements of section 203 of the Voting Rights Act of 1965 (42 U.S.C. 1973aa-1a) such that it must have the capacity to display the full ballot in the alternative languages required by the federal Voting Rights Act if such BMD is to be used where such alternative languages are required or where the local board deems such feature necessary.

2.7.14.1. The vendor shall provide, documentation and cost figures, if any, related to the addition of new language capabilities which may be required by reason of demographic changes identified by the decennial federal census.

2.7.15. Provide a battery power source in the event that the electric supply used to make the BMD function is disrupted. The battery power source shall operate the device and allow for the marking of ballots for a period not less than 2 hours to ensure that the device can shut down prior to the battery power failure, and can resume functionality when power is provided or restored without significant or intrusive power-up procedures. Such batteries must be rechargeable and have a minimum five-year life when used under normal conditions. In the event of a power failure, the device shall perform a normal shut-down not less than one hour before

battery power is depleted, and shall notify the election inspector that the system will do so.

2.7.16. The paper record shall allow for a manual tabulation and allow for preservation in accordance with the provisions of Election Law, Section 3-222.

2.7.17. The BMD shall be capable of showing the information on the display screen in a font size of 3.0 mm, and should be capable of showing the information in at least two font ranges, a) 3.0-4.0 mm and b) 6.3-9.0 mm, under control of the voter. The voter shall also be able to control the contrast of the display screen.

2.7.18. There shall be instructions for performing the verification process made available to the voter, in accessible formats, in a location on or near the BMD.

2.7.19. The BMD shall display and print a paper record in any of the alternative languages chosen for making ballot selections.

Candidate names and other markings not related to the ballot selection on the paper record shall appear in English.

2.7.20. The BMD shall allow the voter to approve or reject the paper record.

2.7.21. Vendor documentation shall include procedures for returning a BMD to correct operation after a voter has used it incompletely or incorrectly.

2.7.22. The vendor shall, without additional cost, provide to the purchaser a five-year guarantee of parts and service that such BMD equipment shall be kept in good working order. Shipping costs for any factory repairs or part replacement will be incurred by the vendor.

2.7.23. The BMD shall provide a means by which the ballot definition code may be positively verified to ensure that it corresponds to the format of the ballot face and the election configuration.

2.7.24. The vendor shall provide cost terms and documentation to include alternative options for BMD printers that are capable of printing ballots in a size where the measurement of the smallest width of such ballot is greater than 8-1/2 inches.

3. Education, Training and Required Documents.

3.1. INSTRUCTION OF PERSONNEL:

3.1.1. The vendor shall provide detailed information regarding in-person training as follows:

3.1.1.1. The maximum number of participants per training session.

3.1.1.2. The duration of training based on vendor-recommended roles and responsibilities.

3.1.1.3. The cost and terms for training to include both regionalized and on-site county training

3.1.2. Within ten business days of acceptance by the Contractor of a Purchase Order, the Contractor and the Authorized User shall

agree upon mutually-acceptable training dates for the contractor to provide live instruction by qualified personnel sufficient to ensure that the product is operating correctly and operator-maintained so as to perform to the full extent of its design capabilities. The Authorized Users shall designate personnel to receive instruction.

3.1.3. In addition, Contractors of BMDs shall, prior to delivery, provide training for Authorized User personnel in the following areas:

- 3.1.3.1. Training on unpacking, assembling and acceptance testing of the equipment.
- 3.1.3.2. Training for proper use of the equipment, including maintenance, storage and transportation procedures.
- 3.1.3.3. Training in the procedures to be used to accomplish ballot face layout and ballot programming.
- 3.1.3.4. Instruction on procedures to be followed by inspectors at polling places.

3.2. INSTRUCTION MATERIALS:

3.2.1. Prior to the commencement of any training, the Contractor(s) shall furnish to the Authorized User complete instruction materials, (video, graphics, audio or text) for the BMD and all accessibility features. These instruction materials shall include the following:

- 3.2.1.1. Training on unpacking, assembling and acceptance testing of the equipment.
- 3.2.1.2. Training on adjusting and aligning the equipment.

- 3.2.1.3. Training for proper use of the equipment, including maintenance, storage and transportation procedures.
- 3.2.1.4. Training in the procedures to be used to accomplish ballot face layout and ballot programming.
- 3.2.1.5. Training on operating the product (including layout and interconnection diagrams and schematic and wiring diagrams).
- 3.2.1.6. Training on preventive and corrective maintenance procedures (including complete part lists, manufacturer's catalog numbers, and ordering information, if applicable).
- 3.2.1.7. Training on voter education on the use of the BMD and any accessibility devices (including methods to be used by eligible voters to mark a ballot).
- 3.2.1.8. Training on procedures to be followed by inspectors at polling places.
- 3.2.1.9. All training materials shall also be provided to the Authorized Users at no additional cost in electronic version to enable the Authorized User to incorporate the training material in the Authorized User's training procedures and training manuals and outreach materials.

3.2.2. This requirement is separate from, and in addition to, any materials otherwise provided.

3.3. In addition, within ten (10) business days of the State Board approving for use such BMD, and prior to the commencement of any training of

Authorized Users, the Contractor(s) shall furnish to the NYSBOE five (5) complete sets of instruction materials, (video, graphics, audio or text) for each product and component supplied to the Authorized Users. These instruction materials shall include:

- 3.3.1. Training on unpacking, assembling and acceptance testing of the equipment.
- 3.3.2. Training on adjusting and aligning the equipment.
- 3.3.3. Training for proper use of the equipment, including maintenance, storage and transportation procedures.
- 3.3.4. Training in the procedures to be used to accomplish ballot face layout and ballot programming.
- 3.3.5. Training on operating the product (including layout and interconnection diagrams and schematic and wiring diagrams).
- 3.3.6. Training on preventive and corrective maintenance procedures (including complete part lists, manufacturer's catalog numbers, and ordering information, if applicable).
- 3.3.7. Training on voter education on the use of the new voting machines and any accessibility devices (including methods to be used by eligible voters to mark a ballot).
- 3.3.8. Training on procedures to be followed by inspectors at polling places.
- 3.3.9. This requirement is separate from, and in addition to, any materials otherwise provided.

3.3.10. The vendor shall permit the NYSBOE and Authorized Users to duplicate these materials for use in public education and training programs.

3.3.10.1. All training materials shall also be provided to the NYSBOE at no additional cost in electronic version to enable the NYSBOE and/or Authorized Users to incorporate the training material in the Authorized User's training procedures and training manuals and outreach materials.

3.4. **Submission, Testing and Examination:** The NYSBOE shall cause the BMD to be examined and a report of the examination to be made. Such examination shall include a determination as to whether the BMD meets the provision of these requirements, and shall include a thorough review and testing of any electronic or computerized features of the device. Such report shall state an opinion as to whether the kind of BMD so examined can safely and properly be used by voters and local boards of elections at elections, under the conditions prescribed herein and the requirements of the federal Help America Vote Act. If the report states that the BMD can be so used, and the board after its own review so determines, in accordance with subdivision four of Section 3-100 of the Election Law, the BMD shall be deemed approved, and may then be purchased for use at elections as herein provided.

3.5. Submission.

- 3.5.1. The vendor shall submit, completed ballot layouts and ballot coding based upon the pre-qualification test format as defined in Exhibit A.
- 3.5.2. The vendor shall acknowledge that the fees for the examination of a BMD shall be assessed against the vendor by the NYSBOE based upon the cost to the NYSBOE for examination of such BMD by an outside contractor, laboratory or other authorized examiner.
- 3.5.3. A vendor shall affirm that:
- 3.5.3.1. The submitted BMD complies with all applicable requirements found herein, and is suitable for use by voters to mark a paper ballot at elections in New York State, and;
- 3.5.3.2. The vendor shall quote and provide a statewide, uniform price for each unit of the BMD, and;
- 3.5.3.3. The submitted BMD's software shall not contain any code, procedures or other material which may disable, disarm or otherwise affect in any manner, the proper operation of the BMD, or which may damage the BMD, any hardware, or any computer system or other property of the NYSBOE or county board, including but not limited to 'viruses', 'worms', 'time bombs', and 'drop dead' devices that may cause the BMD to cease functioning properly at a future time, and;

3.5.3.4. Any submitted BMD shall provide methods through security seals or device locks to physically secure against attempts to interfere with correct device operations. Such physical security shall guard access to device panels, doors, switches, slots, ports, peripheral devices, firmware, and software.

3.5.4. The vendor shall disclose, any pecuniary interest in or any direct or indirect control over any testing laboratory as defined herein or which has been approved by the federal Election Assistance Commission (EAC) which may be used in connection with testing of BMD or voting systems.

3.6. Submission to the NYSBOE.

3.6.1. BMD and other devices accessible to individuals with disabilities, must be approved for use by the NYSBOE prior to use. Each complete BMD, all documentation prescribed herein, must be submitted to the NSYBOE for testing purposes no later than 11 am Eastern Standard Time ten (10) business days after a bid opening. Deliveries must be completed as inside delivery and include the following:

3.6.1.1. Each complete BMD including all accessibility components.

3.6.1.2. A certified or bank check in the amount of \$5,000 shall accompany such submission, and be applied towards the actual cost of the examination.

3.6.1.3. The election management software.

3.6.1.4. Media containing the test general election and test primary election ballot definition code in all required text and audio translations of alternative languages, including English.

3.6.1.5. The BMD shall be pre-programmed with the test general election ballot definition code in all required text and audio translations of alternative languages, including English.

3.6.1.5.1. Audio translation shall include instruction for voters to utilize the BMD for all test ballot styles in alternative languages, including English (Spanish, Korean, Mandarin, and Cantonese).

3.6.1.6. An adequate supply of proprietary and non-proprietary consumables as follows:

3.6.1.6.1. Vendor-recommended paper ballot stock sufficient to test the marking of 1,100 ballots.

3.6.1.6.2. If ballots are to be pre-printed, the vendor shall provide 500 pre-printed test general election ballots and for each of the three test primary election ballots, 200 each.

3.6.1.7. All vendors shall submit to the NYSBOE with their BMD, sworn affidavits from the president, chief executive officer or chief operating officer of the vendor, disclosing any contributions made within the United States by any of those officers, by the vendor itself, or by any controlling shareholder to any political party or candidate for any office, within two years prior to the date the BMD is submitted. After the submission of any BMD, or after the submission of any such affidavit, a vendor must submit to the Election Operations Unit, an affidavit at the end of each calendar quarter (March 31, June 30, September 30 and December 31), disclosing whether or not any new contribution has been made. The submission of such affidavits shall be required throughout the period during which the BMD is approved for use in New York.

3.6.1.8. All vendors shall submit with their BMD, information regarding past or pending court cases involving their

BMD or its major components, any evidence of fraud, faulty systems, or failure to correct past problems.

3.6.1.9. Vendors submitting a BMD for approval must also provide additional systems to be used by the NYSBOE for the purposes of conducting tests.

3.6.1.10. If the BMD is approved for use by the NYSBOE, the specific BMD and components examined by the NYSBOE shall become the property of the NYSBOE for as long as the BMD or equipment is in use in the State or for such shorter period as the NYSBOE shall so determine. BMD's not approved shall be disposed of pursuant to the vendor's direction.

3.6.1.11. The vendor shall provide service and normal maintenance of said BMD or equipment after approval and shall supply to the NYSBOE, at no cost, any modification to the BMD for upgrading of any feature during the period that said BMD is offered for sale and use in the State.

3.6.1.12. Vendors shall submit recommendations for acceptance and maintenance testing to ensure that the software and/or firmware in BMDs purchased and used by county boards of elections is identical to that which was approved.

