

**TOWN OF ARLINGTON**  
**TOWN MEETING ELECTRONIC VOTING STUDY COMMITTEE**

*January 8, 2014*

**Call to Order**

The special meeting of the Town Meeting Electronic Voting Study Committee was called to order by Committee Chair Eric Helmuth in the Second Floor Meeting Room of the Town Hall Annex on Wednesday, January 8, 2014, at 7:32 PM. A copy of the notice of this meeting is appended to these minutes.

*Quorum*

A quorum was present: Wes Beal, Roland Chaput, John Leone, Steve Storch, Adam Auster, Elizabeth Patton, and Eric Helmuth.

Mr. Helmuth noted that this meeting is the Committee's first since September 11 of 2013. The regular meetings for October, November, and December were cancelled, he said.

**Approval of Minutes**

MOTION:  
*Approval of  
Minutes*

Mr. Leone moved to approve the minutes of the September 11, 2013, meeting.

The motion passed unanimously.

**Business**

DISCUSSION:  
*Evaluating  
Proposals*

Mr. Helmuth shared proposals for electronic-voting services from Option Technology Interactive and from Turning Technologies in response to the Town's request for proposals. Copies of the proposals are appended to these minutes.

He said that the Town Manager and Purchasing Officer would like the Committee to score each proposal based on the evaluation criteria in the RFP using whatever point system the Committee thinks best. The Town will then award the contract, he said.

*Lexington's  
Decision*

Mr. Helmuth also reported that the Town of Lexington, faced with proposals from the same two vendors, recently selected Option Technology.

Mr. Helmuth said that he had spoken to Joseph Pato, a Lexington selectman who was involved in that town's decision. Mr. Pato told Mr. Helmuth that Lexington made its selection based in part on its assessment that Option Technology's product displayed individual votes better than that of Turning Technologies, and was generally better suited to Town Meetings' needs, according to Mr. Helmuth.

*Turning  
Technologies*

Mr. Helmuth discussed this and other issues with a sales representative from Turning Technologies. He characterized that firm's product as an audience-participation tool that Turning Technologies proposed could be used to tally votes. The representative admitted that, to the best of Turning Technologies' knowledge, it was not in use for that purpose at any town meeting, Mr. Helmuth said.

*Option Technology  
Interactive*

Mr. Helmuth said that personnel from Option Technology Interactive would be in Massachusetts during the last week in January and might be available for a meeting at that time.

He distributed both proposals and the final RFP issued by the Town; these documents are appended to these minutes.

*Defects in Both  
Proposals*

The ensuing discussion included the following points. Neither proposal was perfect, but generally the proposal from Option Technology demonstrated greater competence and awareness of the needs of town meetings despite having failed to respond to requests for references and similar information.

*Option  
Technology's  
Experience*

Committee members said that in the course of the Committee's work in 2012 and 2013 they had spoken to local officials in towns who are using Options Technology's product for Town Meeting. Members said the Committee ought to take that information into account in its recommendation, missing references notwithstanding.

*Security,  
Verification,  
and Swap-Out*

Committee members noted that Turning Technologies could not guarantee locked voting data, was silent on the issue of data encryption, and did not promise “round trip” verification that the base unit had received each member’s votes correctly. Option Technology promised a quicker swap-out of any defective voting units, a process that some Committee members recalled observing while attending Brookline’s Town Meeting in November of 2012.

Option Technology described its technologies more clearly and would rely on volunteers for things like collecting the voting units at the end of the meeting.

*Display of Votes*

Mr. Helmuth reported that Turning Technologies’ representative demonstrated to him how votes could be displayed, a multi-step process that would entail manual scrolling and would display votes as numeric values 1, 2, or 3, rather than Yea, Nay, and Abstain.

*Data, Auditing,  
and Experience*

While Option Technology’s solution uses a Structured Query Language database, it is not clear what Turning Technologies uses to store data; Turning’s lack of audit capability was a significant defect; Turning’s lack of experience with Town Meeting would require work on Arlington’s part to bring them up to speed.

Further discussion noted that Option Technology did not specifically say the solution was not internet based; that swapping units does not sound easy with Turning Technologies’ proposal; that neither provides an automatic audit log of changes to correct the voting record; that neither proposal explicitly claims to calculate the voting threshold for one side or the other of the question to prevail.

*Evaluation of  
Proposals*

The Committee informally agreed to score both proposals on the six criteria listed on page 9 of the Town’s RFP, giving the proposals criterion an unweighted score of 1–5 points for each criterion. It then awarded the following points:

| <b>Criterion No.</b> | <b>Turning</b> | <b>Option</b> |
|----------------------|----------------|---------------|
| 1 .....              | 3.....         | 3             |
| 2 .....              | 1.....         | 4             |
| 3 .....              | 3.....         | 5             |
| 4 .....              | 2.....         | 4             |
| 5 .....              | 2.....         | 5             |
| 6 .....              | 1.....         | 5             |
| <b>TOTAL.....</b>    | <b>12.....</b> | <b>26</b>     |

MOTION:  
*Scoring of Proposals*

Mr. Auster moved to accept a point score of 12 points for Turning Technologies and 26 points for Option Technology Interactive based on the Committee’s scoring discussion.

The motion passed.

MOTION:  
*Recommendation*

Mr. Leone moved that the committee recommends that the Town should engage Option Technology Interactive.

The motion passed unanimously.

DISCUSSION:  
*Volunteers*

Mr. Leone and others discussed recruiting volunteers from Arlington High School to help distribute and collect handheld voting units in exchange for community-service credit.

MOTION:  
*Bylaw Amendment Warrant Article*

Mr. Leone moved that the Committee put the following on the warrant for the 2014 Annual Town Meeting:

To see if the Town will vote to amend the Town Bylaws to amend the criteria for display of the results of an electronic tally and the quantum of vote at Town Meeting; or take any action required thereto.

The motion passed.

MOTION:  
*Appropriation Warrant Article*

Mr. Helmuth moved that the Committee put the following on the warrant for the 2014 Annual Town Meeting:

To see if the Town will vote to appropriate a sum of money for the purchase or lease of electronic voting equipment for use at Town Meeting, determine how said sum will be raised and expended, or take any action related thereto.

The motion passed.

MOTION:  
*Resolution*  
*Warrant Article*

Mr. Leone moved that the Committee put the following on the warrant for the 2014 Annual Town Meeting:

To determine if it is the sense of Town Meeting to use an electronic tally and display system for voting in future Town Meetings, or take any action related thereto.

The motion passed unanimously.

DISCUSSION:  
*Volunteers*

Committee members discussed their schedules for the next few months. Mr. Helmuth said that the Committee would likely have a special meeting the week of January 27 and might need other special meetings as well.

MOTION:  
*Resolution*  
*Warrant Article*

Mr. Helmuth moved to set the time of the Committee's regular meetings to the first Tuesday of every month at 7:30 PM.

The motion passed.

MOTION:  
*Adjournment*

Mr. Chaput moved that the meeting adjourn.

The motion passed.

**Adjournment**

The meeting adjourned at 9:00 PM.

Adam Auster, *Secretary*

**APPROVED**  
January 28, 2014

Adam Auster, *Secretary*

Eric Helmuth, *Chair*

Documents attached to these minutes:

1. Notice of meeting
2. "Town of Arlington Massachusetts, #13-44, Request for Proposals (RFP)"

3. Proposal of Option Technology Interactive
4. Proposal of Turning Technologies

## **Town Meeting Electronic Voting Study Committee**

Eric Helmuth, Chair | Adam Auster, Secretary

Wednesday, January 8, 2014, 7:30 p.m.

Town Hall Annex, 2nd floor meeting room

### AGENDA:

- 1 - Call to Order
- 2 - Review and approval of minutes
- 3 - Review and discussion of RFP Responses
- 4 - Vendor selection process and next steps
- 5 - Warrant articles
- 6 - Other business

Adjournment

**TOWN OF ARLINGTON  
MASSACHUSETTS**

**#13-44**

**Request for Proposals (RFP)**

The Town of Arlington, Massachusetts (the Town) acting through the Town Manager is requesting proposals from qualified firms for a one-time, staffed, rental of an appropriate electronic voting system for use at its 2014 Representative Town Meeting commencing April 21, for use in as many sessions as the maximum budget of \$10,000 will permit.

Proposals are invited and will be received by the Purchasing Officer, Town of Arlington, Massachusetts on or before **December 19, 2013, 4:00 P.M.** at the Town Manager's/Purchasing Office, Town Hall Annex 2<sup>nd</sup> floor, 730 Massachusetts Avenue, Arlington, MA 02476. Proposals delivered after the appointed time and date will not be considered.

The Town reserves the right to cancel any request for proposals, and to reject in whole or in part any and all proposals, when it is deemed in the best interests of the Town to do so.

Five (5) copies of technical proposal shall be submitted in a sealed envelope marked "Bid #13-44 Electronic Voting System - Technical Proposal" and one (1) copy of the price proposal in a sealed envelope marked "Bid #13-44 Electronic Voting System - Price Proposal"

Adam W. Chapdelaine

Town Manager

December 9, 2013



## **1. Introduction**

In its Annual Town Meeting in the Spring of 2013 Arlington's Representative Town Meeting approved changes in Town bylaws to permit, but not require, the use of electronic systems to record, tally, display and archive the individual votes of Town Meeting Members. (See Appendix A, voting section of Town Bylaws.) This action followed an investigation and subsequent proposals by the Town Meeting Electronic Voting Study Committee.

Town Meeting further appropriated a maximum of \$10,000 for FY2014 for the purpose of renting an appropriate system for use at Annual Town Meeting 2014 that commences April 21, for as many sessions as the maximum budget will permit. Annual Town Meeting sessions are Monday and Wednesday evenings from 8 to 11 pm. and typically require 8 to 10 nights to complete the Warrant.

The intent of this appropriation, as expressed in the Finance Committee commentary on its motion that was voted by Town Meeting, is a trial of electronic voting for one Annual Town Meeting in as many sessions as possible, to see if Town Meeting wishes to adopt such a system for future regular use via a longer term rental, or purchase.

The Town is also interested in a credit toward the potential purchase of the rental system from the one-year rental contract, pending a positive reception of the trial by Town Meeting

## **2. Key dates for RFP response, and overview of the selection process**

RFP Deadline: December 19, 2013, 4:00 P.M.

Award: Within 30 days from deadline.

## **3. Scope of Services**

### **A. Project objective**

The Town of Arrington, Massachusetts ("Town"), is seeking to rent an electronic tally and display system ("System") that uses handheld devices to provide for voting at its 252-member representative Town Meeting where each member is a potential voter. The System typically will operate in the Town Hall Auditorium at 730 Massachusetts Avenue. The Town requires onsite, vendor-supplied personnel to take primary responsibility for operation of the System during the covered Town Meeting sessions.

The System will:

- **Provide a visual vote confirmation to each individual authorized voter** on any item or procedure that may be presented for an electronic vote at sessions of the 2014 Arlington Town Meeting;
- **Tally and display in-progress voting and voting results** to all Town Meeting attendees in varying customized formats and levels of granularity, and
- **Create a secure permanent electronic record** of the details of all such voting (such details to be recorded at the level of every vote taken by every specifically identified Town Meeting member).

## B. Detailed requirements

The following subsections specify the required System components, services, and capabilities. Responding vendors will be evaluated on how well they meet these requirements; thus it is in the vendors' interest to provide details clearly describing how their systems will address each of the required components, services, and capabilities.

### Caveats regarding the detailed requirements:

- When some specified aspect of the System is seen to be desirable by the Town, but isn't deemed to be an essential requirement, the term "prefers" or "preferred" will be used below to indicate that to be the case.
- In cases where a vendor's system includes (potentially unique) capabilities that go beyond the basic requirements in a manner or manners that may be viewed as beneficial to the Town's intended System application (whether or not such capabilities are specifically indicated as "preferred"), the vendor is encouraged to include a description of those added capabilities in its response.
- If a respondent's proposed System does not support a given requirement not indicated as "preferred" (and thus is deemed essential,) the Town may nevertheless, at its sole discretion, consider accepting alternative functionality described in detail by the respondent, provided the alternative is deemed by the Town to sufficiently fulfill the objective(s) for that requirement.

### B.1 System Components and Services

The *System computer* (also referred to as the "operator's computer") will host the software used to develop/customize and project displays, run votes, record and maintain an archive of results, and produce reports. It will interface with the vendor-supplied radio receiver base unit(s) (see below), and with a Town-provided projection system and local cable access television via

standard output connectors and VGA or BNC signaling. The System computer (as well as all other System components) should not require Internet connectivity for proper operation.

Responding vendors shall provide the specifications for the System computer. This should include hardware configuration details as well as the required operating system and any supporting commercially available application software. Vendors shall also specify whether they will provide video signal switching equipment for selecting either the voting system or the Town's hall presentation computer for display at a given time; in either case, video signal switching should be downstream of the standard VGA or BNC output.

**Radio receiver base unit(s)** to support reliable, secure, and prompt receipt, storage, and display of votes from up to 252 handsets, and the delivery of confirming responses back to each of those handsets. The respondent shall stipulate for the proposed System the maximum end-to-end time it will take for the performance of that functional sequence for each voter (i.e., handset vote selection through handset feedback display), and also for the tabulation and display of results at the end of the Town-selected voting period.

**Battery-powered handsets** for 252 Town Meeting members, plus sufficient additional units to serve as spares. The Town prefers that handset batteries shall be non-rechargeable and of general-purpose type such as AA or AAA; however, the respondent may propose an alternative using custom or rechargeable batteries (along with supplied charging equipment). Vendors must specify the maximum number of simultaneous users (active handsets) that can be supported by their System.

**Storage containers** for all System hardware (e.g., handsets, base unit(s)). If the respondent proposes the use of rechargeable batteries, the storage containers shall also accommodate the recharging components, including wiring and charging stations.

**System operation.** The selected vendor will provide onsite staff to take primary responsibility for operation of the System during the covered Town Meeting sessions. Because this is a sensitive initial deployment meant to provide a robust trial of electronic voting in Town Meeting, reliability and smooth operation is especially important. The Town believes this objective can best be met by a vendor-supplied operator(s). While Town IT and other Town staff and appointed volunteers will be available to operate Town-provided systems and to handle administrative requirements (e.g., distributing and collecting handsets), it is expected that their operational knowledge of the electronic voting system will be limited; thus, the onsite vendor representative(s) will be instrumental to the successful operation of the system.

Responding vendors should describe the functions to be provided by their onsite staff in detail. Given the need to configure and verify operation of the System hardware and software components prior to each Town Meeting session, and to properly archive the session's voting data and inventory and secure equipment afterwards, it is expected that the onsite support will commence before the official start of each evening's meeting, and will continue for some time after adjournment. Vendors should provide their expectations for total time spent by their staff onsite (number of vendor staff, hours per Town Meeting session). Note that the typical duration of each Town Meeting session, from opening to adjournment is 3 hours.

**Training.** The use of the System as solicited in this RFP will be as a trial prior to the potential procurement of a long-term electronic voting system solution for Arlington's future Town Meetings. Responding vendors should propose support for a training plan that is adequate for such a short-term trial, where primary System operation will be provided by the vendor (as specified above). The Town anticipates the need to train assigned IT and administrative staff/volunteers to the degree necessary to properly interface with and help administer the vendor System, and to introduce the Town Meeting members to the System and train them in its proper use during the voting process. Adequate training will be critical to a proper evaluation of the System by Town Meeting and, as such, the Town anticipates devoting its own resources to a training plan to be implemented before the 2014 Town Meeting sessions begin. Vendors should recommend, based on their prior experience, specifically how Arlington should implement the training for the trial system, and explain how they will support that effort.

## B.2 System Capabilities

1. Voting shall be conducted via pre-assigned unique (at the "hardware level") handsets that will be configured to be associated with, and then distributed to, each Town Meeting member. The handset shall support the user entry of one of three voting choices (Yes/No/Abstain), and shall include a display used to confirm the user's votes. Such confirmation shall be of the user votes as actually received by the radio receiver base unit and registered in the System voting results database, i.e., confirmation must be based on feedback received by the handset from the base unit rather than simply being a local echo of user input. Vendors shall describe how this is accomplished.
2. The System shall allow, without limit, a voter to change his/her vote during the voting period for each matter, with only the final vote received by the System as of the close of the period being effective.
3. The handsets must operate reliably and securely within a 56' X 66' auditorium, without interfering with, or being interfered by, cellphone transmissions, 802.1x wireless transceivers, assisted-listening devices, wireless microphones, or other common wireless devices. Vendors should specify the maximum reliable range for the handsets, and should describe technical measures taken to protect the integrity of handset-to-base-station data communication, and to mitigate against interference from/to other wireless systems. Any potential interference interactions with other systems should be described.
4. The handsets shall include a low battery indicator. Battery life for the units must be at least 4 hours. Vendors should specify the expected battery life when the handsets are on and in "ready to vote" status.
5. If the handsets can support other non-essential System functions (e.g., requesting the attention of the Moderator), these should be specified.
6. It is critically important that the System will be able to provide reliable service during the covered Town Meeting sessions. Respondents should describe the measures that will be taken to ensure continued operation in the case of failure of handset, radio receiver base

unit, or System computer hardware, including the expected quantities of spare unit provisioning. In the case of handset failure (or handset loss by the "owning" Town Meeting member), the vendor shall provide the detailed, step-by-step, process by which the old handset will be replaced by a properly-configured replacement unit that is then recognized by the System as being associated with the same member. The approximate elapsed time for such replacement should be specified. The System must lock out the previously recognized handset unless and until the System operator manually reactivates that handset for some future use by any voter.

7. All displays to be generated by the system must be legible from as far as 70 feet away when projected on a large screen with dimensions of approximately 8 feet x 8 feet.
8. The System shall be capable of generating a customizable display ("Slide") during voting of a 2-line (or more) description of the matter upon which the vote is being taken. Per-member votes of either Yes, No, or Abstain (or Abs), both in text and identified by a unique color, or blank to indicate a non-vote, shall be displayable via multiple Slides at the conclusion of the voting period. Members shall be identifiable by name and precinct number, with a customizable number of member results included per slide.
9. The System shall further allow for suppression of the display of the individual member votes, such that only total Yes, No, Abstain tallies are shown, and shall be capable of displaying the required vote threshold applicable for passage of the matter to which a vote applies, and whether the matter has passed or failed based on that threshold.
10. The System shall permit ad hoc selection of either displaying or suppressing the display of individual member votes prior to each vote.
11. The System shall provide that any of the Slides (including any set of Slides to display the voting results and other matters involving display of all the Town Meeting member information) can be advanced on a customizable timed or on a manual basis.
12. The System shall provide for Slides that can be prepared by the operator in advance for both the specific matters expected to come before a given Town Meeting session, as well as for more generic matters (e.g., quorum calls) with the latter being able to be reused during Town Meeting - but with the voting data for each use individually identified and retained. Notwithstanding this capability, the System must efficiently support voting on unanticipated matters first arising over the course of the meeting, or changes in the sequence of voting on expected items. Vendors should describe how such entirely new items or changes are supported.
13. The System shall provide the option of including in a Slide a customizable countdown clock that indicates the amount of time remaining during a customizable voting period. Real-time voting information (e.g., the instantaneous number of votes cast, without indicating the current Yes/No/Abstain tally) shall be displayable during the voting period. The Town prefers a provision for an indication (e.g., a change in color) during a

customizable number of seconds near the end of the voting period. The Town would prefer that the voting count-down time also be included on the handset displays.

14. The respondent shall present suggested templates that are considered suitable for presentation of the types of Slides that have been mentioned herein on the aforementioned projection screen when viewed from the aforementioned maximum distance.
15. The System shall provide a secure permanent electronic record of all votes taken, within the operator's computer and available for export to an external device (e.g., a USB "thumb" drive). The record shall contain the Town Meeting members' precinct numbers, names, and their votes along with the description of each corresponding matter voted on and the date & time (to the nearest second) when the voting period for that matter ended. Vendors shall describe specifically how a session's results are stored.
16. Voting data shall be capable of easily being exported via standard non-proprietary formats such as Excel, PDF, Word, and CSV; vendors shall specify the formats supported by their System and shall describe options for generating reports of voting results.
17. The System database on the operator's computer for each Town Meeting session shall have a reversible "lock" that is set at the end of each session so that an explicit, additional, action is required to make that file editable. Correction of improperly recorded votes shall be allowed by the System, with such corrections noted in transaction/audit logs and on any generated reports.
18. In general, respondents shall describe security considerations employed within the operator's computer, as well as within the other System components, to limit the ability to modify the voting records and to preserve previous results in the case of a failure of any component of the System.

### **C. Town of Arlington Responsibilities**

1. Town staff will provide, maintain and operate the video display system including a projector and screen which is also utilized for speaker presentations
2. The Town will transmit the standard video output from the System to local cable access television and will operate the video switch between the voting system (operated by vendor-supplied personnel) and the main presentation computer (operated by town personnel).
3. The Town will, if necessary, provide staff or authorized volunteers to assist with the distribution and collection of voting handsets before and after each Town Meeting session.
4. The Town will supply electricity and a desk for the voting administrator.

5. The Town will format the exported voting reports for website and hard copy publication; note, however, that the ease of transforming the System's native output into a form the Town deems suitable for public distribution is a comparative evaluation factor, per section 5 below.

## **4. Submission Requirements and Instructions**

### **A. Proposal Elements**

1. A narrative with appropriate supporting appendices that addresses the requirements and questions enumerated above. Specify any equipment or functions that would be the Town's responsibility not already enumerated above.
2. Please specify if a returnable sample of the proposed voting handset, for use in our evaluation of your proposal, is possible.
3. Provide contact information for at least 3 references, with at least one from a municipal body using a comparable system and support services for comparable purposes.
4. Please outline your availability for local (in-person) and/or remote system demonstration and interviews.
5. Summarize your company's history, key staff, relevant experience with other municipalities, and other information pertaining to your firm's qualifications and capabilities.
6. Explain how your solution differentiates you from other vendors and why we should choose your company
7. Confirm your ability to provide service on the scheduled dates for Annual Town Meeting, indicating any specific dates you would be unable to provide service (Town Meeting commences April 21, 2014 and meets Mondays and Wednesday evenings for 8 to 10 total sessions).

### **B. Proposal instructions**

Five (5) copies of technical proposal shall be submitted in a sealed envelope marked "Bid #13-44 Electronic Voting System - Technical Proposal" and one (1) copy of the price proposal in a sealed envelope marked "Bid #13-44 Electronic Voting System - Price Proposal"

## 5. Evaluation Criteria

Responding vendors who confirm their ability to provide service (per Section 4.A.7) will be evaluated against competing proposals on the following comparative criteria:

1. QUESTION ONE: Compliance with information requested by this RFP and demonstrated understanding of the Town's objectives and needs as evidenced by the content of the proposal.
2. QUESTION TWO: Extent to which the vendor's capabilities and experience, as described in the proposal and verified by the References, demonstrate qualifications and capabilities to provide the services.
3. QUESTION THREE: Degree to which vendor meets or exceeds the stated technical, functional, training, operating and support requirements, as described in the proposal.
4. QUESTION FOUR: The proposed solution's demonstrated "ease of use", efficiency and speed for town meeting members, voting administrator, Moderator, and town IT staff in all aspects of operation, including but not limited to:
  - a. Handset operation and voting confirmation feedback
  - b. Projected voting results
  - c. Creating and amending voting Slides
  - d. Re-voting
  - e. Handset replacement by spares
  - f. Conversion of voting report output to formats suitable for website and print reports
5. QUESTION FIVE: Confidence level that vendor can deliver the scope of services and with high reliability and security, as evidenced by the proposal and its supporting documentation, inquiries to references, vendor interviews, and (if applicable) vendor demonstrations.
6. QUESTION SIX: Degree to which the vendor offer a "competitive edge" that sets it apart from other submissions.





**Option  
Technologies**  
Interactive

December 18, 2013

Adam W. Chapdelaine  
Town Manager  
Town of Arlington  
Town Hall Annex, 2<sup>nd</sup> Floor  
730 Massachusetts Avenue  
Arlington, MA 02476

*RE: RFP #13-44*

Dear Mr. Chapdelaine,

We at Option Technologies Interactive, LLC thank you for the opportunity to provide a response to your Request for Proposal #13-44 for electronic voting support for the April 2014 Town Meetings in Arlington.

The response to your Request for Proposal is attached. Option Technologies Interactive is will provide a complete solution that satisfies every aspect of the Town Meeting voting process, from pre-event planning, equipment installation, rehearsals with the Moderator, Clerk and other team members, to voting on articles and motions and post-event removal of equipment. We have provided pricing for ten nights of Town Meeting.

Option Technologies offers one of the world's largest rental fleets of advanced multi-digit radio keypads. We combine this cutting edge hardware with the widest family of proprietary interactive software products in the industry, including our proprietary Council Voting Module.

Our system seamlessly gathers and displays representative voting results as the Town Meeting unfolds. The CVM provides a wide variety of interactive polling and data display tools that work well within the flow of Town Meeting deliberations at the direction of the Town Moderator.

Option Technologies Interactive (OTI) has set the standard for flawless interactive presentations and facilitated meeting support for more than twenty eight years. We have a proven track record of outstanding client service.

We have demonstrated our open Town Meeting capabilities on-site during meetings with other Massachusetts towns. We appreciate the opportunity to submit this proposal and hope to work with you team on this meeting.

Best regards,

Mark A. Fite,  
President/CEO

3301 Bartlett Blvd. | Orlando, Florida 32811 | ph 407.872.3333 | fx 407.872.3330 |  
optiontechnologies.com

**Town of Arlington  
Request for Proposal (RFP No. 13-44)**

**Responses from Option Technologies Interactive**

**A.1 Project Objective**

**Requirement A1.1A – Vote Confirmation**

**The System will provide a visual vote confirmation to each individual authorized voter on any item or procedure that may be presented for an electronic vote at sessions of the 2014 Arlington Town Meeting.**

**Response A1.1A – Vote Confirmation**

Option Technologies will provide OptionFinder G3 keypad handsets to each individual authorized voting representative at the 2014 Arlington Town Meeting. When a vote occurs the representative will press “1” for “YES” and “2” for “NO”. Each handset will then receive an acknowledgement from the base station and the handset will display “YES Received” or “NO Received” on the representative handset. Voters may change their mind while polling is open. They will receive a confirmation message on their handset that corresponds with their new selection each time they submit a new vote.

If desired, the acknowledgement messages will remain on each representative handset until the Moderator moves to the next Article, question, or motion. The system also provides the capability to display voting results publicly, by representative, while voting is underway or after voting is closed.

**Requirement A1.1B – Tally Voting Results**

**The System will Tally and display in-progress voting and voting results to all Town Meeting attendees in varying customized formats and levels of granularity.**

**Response A1.1B – Tally Voting Results**

If desired, the OptionPower® Council Voting Module system will display votes and tallies while voting is underway. Each representative voting display screen for each question may be customized in a variety of ways to match the sequence and formatting preferences of the Moderator and Town leaders. This includes countdown timer, rotating panels showing votes by representatives and precincts as well as Pass/Fail indicators tied to the quantum required for the each question (50%, 2/3rds etc.).

### **Requirement A1.1C – Secure Permanent Record**

**The System will create a secure permanent electronic record of the details of all such voting (such details to be recorded at the level of every vote taken by every specifically identified Town Meeting member).**

### **Response A1.1C – Secure Permanent Record**

All votes are recorded and stored in a Microsoft SQL database. The OptionPower® proprietary relational data model records every vote for every representative, the title of every motion or question, as well as roster information about each voting representative. This database is secure and allows for immediate data reporting and export.

### **B.1 System Components and Services**

#### **Requirement B1.1A System Computer :**

**The System computer (also referred to as the "operator's computer") will host the software used to develop/customize and project displays, run votes, record and maintain an archive of results, and produce reports. It will interface with the vendor-supplied radio receiver base unit(s) (see below), and with a Town-provided projection system and local cable access television via standard output connectors and VGA or BNC signaling. The System computer (as well as all other System components) should not require Internet connectivity for proper operation.**

**Responding vendors shall provide the specifications for the System computer. This should include hardware configuration details as well as the required operating system and any supporting commercially available application software. Vendors shall also specify whether they will provide video signal switching equipment for selecting either the voting system or the Town's hall presentation computer for display at a given time; in either case, video signal switching should be downstream of the standard VGA or BNC output.**

#### **Response B1.1A System Computer:**

Option Technologies will provide a primary and back-up notebook control computer running Windows 7 and PowerPoint 2010 along with our proprietary OptionPower® software with the Council Voting Module add-on. We will provide a primary and back-up OptionFinder G3 radio transceiver (base station) that connect to the computer and will communicate with radio handsets issued to 252 voting representatives.

Recommended system requirements include a computer with a 2 GHz processor, 4 GB of memory and 100 GB of available hard drive space. The recommended operating systems are Microsoft Windows 8,

Windows 7, or Windows XP (32 or 64 bit). The system must also include a licensed version of Microsoft Office 2010 or 2007 (32 bit) including PowerPoint, Excel and Word.

The computer system will output VGA signals to a primary and back-up VGA switches and VGA Video Distribution Amplifiers. The switching and signal distribution system will provide a VGA output for projection and local access television as well as a monitor for the Town Moderator and Town Clerk at their position. The voting system can be configured to allow seamless switching back and forth between computer displays of material associated with Articles on the warrant and voting screens.

**Requirement B1.1B - Radio Receiver Base Unit(s):**

**Radio receiver base unit(s) to support reliable, secure, and prompt receipt, storage, and display of votes from up to 252 handsets, and the delivery of confirming responses back to each of those handsets. The respondent shall stipulate for the proposed System the maximum end-to-end time it will take for the performance of that functional sequence for each voter (i.e., handset vote selection through handset feedback display), and also for the tabulation and display of results at the end of the Town-selected voting period.**

**Response B1.1B - Radio Receiver Base Unit(s):**

The OptionPower® system, OptionFinder G3 handsets and radio transceiver base stations typically tabulate responses from 252 handsets every 3 seconds. Handset acknowledgement messages will typically be received within 3 seconds after tabulation. Results typically display on public screens two to three seconds after the close of polling.

Heavy interference or high levels of competing radio traffic on the 2.4 GHz band in close proximity can slow these response times.

**Requirement B1.1C - Battery Powered Handsets:**

**Battery-powered handsets for 252 Town Meeting members, plus sufficient additional units to serve as spares. The Town prefers that handset batteries shall be non-rechargeable and of general-purpose type such as AA or AAA; however, the respondent may propose an alternative using custom or rechargeable batteries (along with supplied charging equipment). Vendors must specify the maximum number of simultaneous users (active handsets) that can be supported by their System.**

**Response B1.1C - Battery Powered Handsets:**

We will provide handsets for all 252 Town Meeting members plus 25 spare units. Each OptionFinder G3 handset uses two standard non-rechargeable AA batteries. The batteries have a life of approximately one year under typical usage. The Option Technologies Voting Administrator will test every handset each day before Town Meeting and replace the batteries in any unit that does not indicate a "full" battery status.

The OptionFinder G3 hardware system scales to a maximum of 15,500 simultaneous users (active handsets) in a single venue.

**Requirement B1.1D – Storage Containers:**

**Storage containers for all System hardware (e.g., handsets, base unit(s)). If the respondent proposes the use of rechargeable batteries, the storage containers shall also accommodate the recharging components, including wiring and charging stations.**

**Response B1.1D – Storage Containers:**

Option Technologies will provide secure plastic resin cases with slotted foam to store all equipment. We will provide foam racks to organize keypads, by precinct, for pick-up by voting representatives as they arrive at Town Meeting.

Charging cases are not required.

**Requirement B1.1E – System Operation:**

**System operation. The selected vendor will provide onsite staff to take primary responsibility for operation of the System during the covered Town Meeting sessions. Because this is a sensitive initial deployment meant to provide a robust trial of electronic voting in Town Meeting, reliability and smooth operation is especially important. The Town believes this objective can best be met by a vendor-supplied operator(s). While Town IT and other Town staff and appointed volunteers will be available to operate Town-provided systems and to handle administrative requirements (e.g., distributing and collecting handsets), it is expected that their operational knowledge of the electronic voting system will be limited; thus, the onsite vendor representative(s) will be instrumental to the successful operation of the system.**

**Responding vendors should describe the functions to be provided by their on-site staff in detail. Given the need to configure and verify operation of the System hardware and software components prior to each Town Meeting session, and to properly archive the session's voting data and inventory and secure equipment afterwards, it is expected that the onsite support will commence before the official**

start of each evening's meeting, and will continue for some time after adjournment. Vendors should provide their expectations for total time spent by their staff onsite (number of vendor staff, hours per Town Meeting session). Note that the typical duration of each Town Meeting session, from opening to adjournment is 3 hours.

**Response B1.1E – System Operation:**

Our on-site Option Technologies Voting Administrator will set up, install, and operate the system. Town representatives will be needed for handset distribution and collection.

**Requirement B1.1F – Training:**

The use of the System as solicited in this RFP will be as a trial prior to the potential procurement of a long-term electronic voting system solution for Arlington's future Town Meetings. Responding vendors should propose support for a training plan that is adequate for such a short-term trial, where primary System operation will be provided by the vendor (as specified above). The Town anticipates the need to train assigned IT and administrative staff volunteers to the degree necessary to properly interface with and help administer the vendor System, and to introduce the Town Meeting members to the System and train them in its proper use during the voting process. Adequate training will be critical to a proper evaluation of the System by Town Meeting and, as such, the Town anticipates devoting its own resources to a training plan to be implemented before the 2014 Town Meeting sessions begin. Vendors should recommend, based on their prior experience, specifically how Arlington should implement the training for the trial system, and explain how they will support that effort.

**Response B1.1F – Training:**

Option Technologies personnel will set up, operate, secure and pack-up the interactive system for the April 2014 Town Meeting. We expect to send two team members for the initial installation which will require approximately six hours on the first day of town meeting.

The training program for members of the Town staff and Town volunteers will be determined by the learning objectives for various roles. Initially, we recommend training the volunteers or staff members who will distribute and collect handsets and staff the Electronic Voting Help Desk. Training for these individuals will require approximately 30 minutes and may be conducted on the first day of Town Meeting prior to the arrival of voters.

We also recommend a training session for the Moderator and Town Clerk lasting approximately 90 minutes. This session should take place prior to the first day of Town Meeting. It typically provides

information on voting system as well as a rehearsal of the voting process. The objective is to develop a smooth, coordinated voting process involving the Voting Administrator, the Moderator, and the Town Clerk. This session will also establish the preferred format for voting slides, as well as procedures to establish and update the roster of voting representatives, prepare voting slides, conduct each ballot, announce results and transmit reports after each session.

Option Technologies can also provide training and instruction on the OptionPower software and hardware for Town staff members who are tasked with operating the system in the future. Typically, this is a six hour workshop and includes training materials and handouts with examples of best practice electronic voting procedures. We do not recommend this training until 45 days prior to Town Meeting electronic voting implementation.

## **B.2 System Capabilities**

**Requirement B.2.1 - Voting shall be conducted via pre-assigned unique (at the "hardware level") handsets that will be configured to be associated with, and then distributed to, each Town Meeting member. The handset shall support the user entry of one of three voting choices (Yes/No/Abstain), and shall include a display used to confirm the user's votes. Such confirmation shall be of the user votes as actually received by the radio receiver base unit and registered in the System voting results database, i.e., confirmation must be based on feedback received by the handset from the base unit rather than simply being a local echo of user input. Vendors shall describe how this is accomplished.**

### **Response – B.2.1**

Each representative will receive a two-way OptionFinder G3 radio handset. Each handset will be uniquely identified by a number tied to the roster of representatives. For each vote, the representative may press "1" for "YES", "2" for "NO", and "3" for "ABSTAIN". The display on the handset will confirm the selection and then display a confirmation message transmitted to the handset from the control computer indicating "YES Received", "NO Received" etc. This confirmation message will stay visible on the individual handset until the display is reset by the Voting Administrator.

**B.2.2 The System shall allow, without limit, a voter to change his/her vote during the voting period for each matter, with only the final vote received by the System as of the close of the period being effective.**

### **Response B.2.2**

The voter may change his or her vote at any time during the voting period. Only the final response received during the voting window will be tabulated.

**B.2.3 The handsets must operate reliably and securely within a 56' X 66' auditorium, without interfering with, or being interfered by, cellphone transmissions, 802.1x wireless transceivers, assisted-listening devices, wireless microphones, or other common wireless devices. Vendors should specify the maximum reliable range for the handsets, and should describe technical measures taken to protect the integrity of handset-to-base-station data communication, and to mitigate against interference from/to other wireless systems. Any potential interference interactions with other systems should be described.**

#### **Response B.2.3**

All OptionFinder G3 handsets use proprietary two way radio chips and Frequency Hopping Spread Spectrum (FHSS) communications to transmit, receive, and verify encrypted data packets. The encryption scheme is proprietary. The G3 systems operate on the 2.4 gigahertz band which is also utilized by 802.1x devices. These systems do not use 802.1x protocols or channels. Population of all 16 802.1x channels with high powered access points in the same room as the voting system, along with high utilization, can slow the performance of the voting system.

Range and performance of OT keypads are determined by the physical characteristics of the room, interference or harmonics on the radio spectrum in close proximity to the system, and the position and elevation of the base station transceiver. Depending on these variables the reliable range of G3 can typically vary from 400 feet to 650 feet. Experience with other Towns operating in similar environments suggests that Arlington can expect good radio coverage and performance throughout the auditorium.

System signals are encrypted and involve proprietary radio chips and methods as described above. The OT electronic voting system involves additional security layers in addition to encrypted transmission.

**B.2.4 The handsets shall include a low battery indicator. Battery life for the units must be at least 4 hours. Vendors should specify the expected battery life when the handsets are on and in "ready to vote" status.**

#### **Response B.2.4**

Each handset includes a display with a battery status indicator. Battery life is normally one year with use four to eight hours per day five days per week.



**B.2.5 If the handsets can support other non-essential System functions (e.g., requesting the attention of the Moderator), these should be specified.**

**Response B.2.5**

The OptionPower® system includes a Speaker Queue function. Voters press a key on their handset to add themselves to a Queue of individuals who wish to speak. Because the Voting Administrator is tasked with quickly preparing ad hoc voting slides while debate takes place, we do not typically recommend the use of the Speaker Queue function for Town Meetings.

**B.2.6 It is critically important that the System will be able to provide reliable service during the covered Town Meeting sessions. Respondents should describe the measures that will be taken to ensure continued operation in the case of failure of handset, radio receiver base unit, or System computer hardware, including the expected quantities of spare unit provisioning. In the case of handset failure (or handset loss by the "owning" Town Meeting member), the vendor shall provide the detailed, step-by-step, process by which the old handset will be replaced by a properly-configured replacement unit that is then recognized by the System as being associated with the same member. The approximate elapsed time for such replacement should be specified. The System must lock out the previously recognized handset unless and until the System operator manually reactivates that handset for some future use by any voter.**

**Response B.2.6**

In the event of a problem with an individual handset, a replacement unit is issued to the voter. The Voting Administrator updates the system roster with the new handset ID for the voter. This typically requires one to two minutes depending on the room layout. Handsets not linked to a voter on the roster are "locked out".

**B.2.7 All displays to be generated by the system must be legible from as far as 70 feet away when projected on a large screen with dimensions of approximately 8 feet x 8 feet.**

**Response B.2.7**

Audio visual industry guidelines suggest that an 8 foot high screen is appropriate for maximum projection distances of 48 feet to 64 feet. A ten foot high screen is recommended for projection distances of 70 feet.

With an eight foot high screen a bold 16 point font is the smallest font size legible at 64 feet. This size font will allow for legible display of 48 voter names and results at one time. With this configuration, six screen rotations of updates to the voter grid will be required to display results from 252 representatives. A larger screen will allow for display of more names or better visibility.

**B.2.8 The System shall be capable of generating a customizable display ("Slide") during voting of a 2-line (or more) description of the matter upon which the vote is being taken. Per- member votes of either Yes, No, or Abstain (or Abs), both in text and identified by a unique color, or blank to indicate a non-vote, shall be displayable via multiple Slides at the conclusion of the voting period. Members shall be identifiable by name and precinct number, with a customizable number of member results included per slide.**

**Response B.2.8**

The OptionPower Council Voting system allows the system operator to adjust the vote display screen. This screen displays the title of the motion (2 lines or more), a grid of voter names precincts and votes, voting totals, a countdown timer and a pass/fail indicator. The size of the text and the font can be configured to optimize the public display. The grid of voter names and votes is fully configurable. It rotates manually or automatically until votes from all representatives have been displayed. The number of voter names displayed at one time in rows and columns is adjustable and a direct function of the size of the font selected. Each representative vote is indicated by text (e.g. "YES") and a color (e.g. Green box).

**B.2.9 The System shall further allow for suppression of the display of the individual member votes, such that only total Yes, No, Abstain tallies are shown, and shall be capable of displaying the required vote threshold applicable for passage of the matter to which a vote applies, and whether the matter has passed or failed based on that threshold.**

**Response B.2.9**

The OptionPower system allows the Voting Administrator to control the display of names and votes, tallies, and Pass/Fail results either manually or automatically. These visual elements may be displayed (or not displayed) in whatever sequence is preferred.

**B.2.10 The System shall permit ad hoc selection of either displaying or suppressing the display of individual member votes prior to each vote.**

**Response B.2.10**

The OptionPower system allows for complete ad hoc control of the grid of individual member votes (display or hide) on each vote.

**B.2.11 The System shall provide that any of the Slides (including any set of Slides to display the voting results and other matters involving display of all the Town Meeting member information) can be advanced on a customizable timed or on a manual basis.**

**Response B.2.11**

The OptionPower system provides a fully customizable display for each vote. Voting slides can be individually configured to operate automatically (with a timer) or manually.

**B.2.12 The System shall provide for Slides that can be prepared by the operator in advance for both the specific matters expected to come before a given Town Meeting session, as well as for more generic matters (e.g., quorum calls) with the latter being able to be reused during Town Meeting - but with the voting data for each use individually identified and retained. Notwithstanding this capability, the System must efficiently support voting on unanticipated matters first arising over the course of the meeting, or changes in the sequence of voting on expected items. Vendors should describe how such entirely new items or changes are supported.**

**Response B.2.12**

The system allows the Administrator to prepare voting slides for each Article and procedural vote in advance (e.g. quorum call, motion to Refer Back, motion to Amend, etc.) During the meeting, the Administrator typically creates new voting slides by duplicating and modifying existing slides. Each new voting slide is uniquely identified and tracked. Preparation of a new voting slide can take as little as ten seconds depending on the circumstances and skill of the Voting Administrator.

**B.2.13 The System shall provide the option of including in a Slide a customizable countdown clock that indicates the amount of time remaining during a customizable voting period. Real-time voting information (e.g., the instantaneous number of votes cast, without indicating the current Yes/No/Abstain tally) shall be displayable during the voting period. The Town prefers a provision for an indication (e.g., a change in color) during a customizable number of seconds near the end of the voting period. The Town would prefer that the voting count-down time also be included on the handset displays.**

**Response B.2.13**

OptionPower supports a customizable countdown clock that can be placed anywhere on the voting slide. The timer does not change color. No timer is included on handset displays.

**B.2.14 The respondent shall present suggested templates that are considered suitable for presentation of the types of Slides that have been mentioned herein on the aforementioned projection screen when viewed from the aforementioned maximum distance.**

**Response B.2.14**

Option Technologies will work with Town representatives to modify the voting slide templates by adjusting font size and coloration to maximize visibility.

**B.2.15 The System shall provide a secure permanent electronic record of all votes taken, within the operator's computer and available for export to an external device (e.g., a USB "thumb" drive). The record shall contain the Town Meeting members' precinct numbers, names, and their votes along with the description of each corresponding matter voted on and the date & time (to the nearest second) when the voting period for that matter ended. Vendors shall describe specifically how a session's results are stored.**

**Response B.2.15**

The system provides a secure permanent electronic record of all votes taken. During and after each session the voting administrator will export the data to an external device (e.g. USB "thumb" drive). The record will contain the names, precincts and individual votes along with the title (description) of each voting matter. All results are stored in a proprietary relational SQL database.

**B.2.16 Voting data shall be capable of easily being exported via standard non-proprietary formats such as Excel, PDF, Word, and CSV; vendors shall specify the formats supported by their System and shall describe options for generating reports of voting results.**

**Response B.2.16**

All voting data may be exported in Microsoft Excel, Word, CSV and XML formats. The system includes report layouts for representative Town Meeting voting by individual and Precinct. These reports are typically prepared and transmitted as Excel files.

**B.2.17 The System database on the operator's computer for each Town Meeting session shall have a reversible "lock" that is set at the end of each session so that an explicit, additional, action is required to make that file editable. Correction of improperly recorded votes shall be allowed by the System, with such corrections noted in transaction/audit logs and on any generated reports.**

**Response B.2.17**

The system will support a password based "lock" that will prevent session data from being modified or deleted. The system will support manual correction of improperly recorded votes on session reports along with and a manually created log of such changes.

**B.2.18 In general, respondents shall describe security considerations employed within the operator's computer, as well as within the other System components, to limit the ability to modify the voting records and to preserve previous results in the case of a failure of any component of the System.**

**Response B.2.18**

The OptionPower computers and SQL database are password protected. The Administrator backs up session data to a USB drive at regular intervals during the meeting. At the end of each session, the Administrator prepares generates two USB back-ups of "locked" session data.



The OptionFinder® G3 lets you harness the wisdom and creativity of your audience with an intelligent, multi-digit response tool. The G3 offers a unique blend of sophisticated input features in a small-footprint, durable and value-oriented keypad.

Use the OptionFinder® G3 at your next event and watch the cost, time and hassle of participant tracking and evaluation disappear. Users can easily switch sessions, rooms and content tracks while using a single keypad. They simply press the Join key in any interactive session and their responses are instantly linked to that presentation. Your post-event data consolidation and review can be simple and quick.

The easy-to-read 11-character display allows participants to quickly handle even large numerical or ranking inputs. The compact OptionFinder® receiver connects via standard USB or ethernet connectors, opening the door for multi-site meetings and distance learning initiatives. The G3 uses a patented license-free communication protocol to achieve superior range, reliability and security.

The G3 is designed for ease of use and longevity. The compact format fits naturally in the user's hand but is not so small that keys are difficult to press. The OptionFinder® G3 boasts a superior tough case and long-lasting keys. Choose the durable G3 now and reduce your likelihood of costly repairs and replacements later.

For sophisticated capabilities in a small package, the OptionFinder® G3 is your clear choice.

## Technical Specification for Wireless Keypad Model: **OptionFinder® G3**

### Enclosure

- Compact, ultra-durable molded ABS plastic case.
- Dimensions: 5.25" L x 2.2" W x 1" H.
- Weight: 3.9 ounces with batteries installed.
- Color: White/Blue.

### User Input

19 keys for entering simple or complex responses. Numbers (0-9) and three customizable soft keys, plus special keys for Send, Alert, Search, Clear and Power.

### Display

Two line backlit LCD screen is easy to read

in all lighting conditions. Display shows user entry plus confirms (via patented process) when the base station accepts the keypad's input.

Screen icons show response accuracy and type, battery level, login status, signal strength, link activity and keypad address and channel number.

### RF Technology

Employs specially designed 2.4 GHz frequency hopping spread spectrum (FHSS) transceivers.

- FHSS offers excellent range, immunity to interference, and security.

Patented and proprietary radio protocol.

- Creates a secure communications network between keypads and their associated base station.
- User entries are acknowledged when received by the base station (patented feature).
- G3 systems operate reliably in the presence of other RF devices (WLANs, PDAs, phones, etc.).
- Integrated error checking discriminates system signals from all other RF traffic to ensure data accuracy and to enhance security.

Internal antenna is protected by the keypad enclosure.



## User Identification

The Join key allows each keypad to easily identify itself and change its channel via dynamic addressing to communicate with any session or meeting. Users can easily participate in multiple sessions or activities without the need for manual rostering or attendance verification.

Each keypad has an RF device identity ("address") between 1-500 and a channel identity between 1-31.

Addresses are user programmable. Each keypad has a unique device serial number.

## Range

Spread spectrum technology is designed to operate in an indoor area 650 x 650 feet (200 x 200 meters). A room's geometry and RF propagation characteristics will influence the actual range experienced.

## Speed

Default speed is 200 keypads per second. Polling rates are adjustable and can achieve 1/2-second speed in groups of 100 or less.

## Power and Power Management

Powered by two standard AA batteries.

- Keypad powers down after each response to conserve battery life.
- Battery life is ~10,000 responses or battery shelf life, whichever comes first.
- Low battery indicated on display. The keypad can also transmit a low battery alert to the base station.

## Communications Security

A proprietary response verification protocol integral to the radio design provides a high degree of signal security.

Frequency hopping and proprietary data communications are additional deterrents to clandestine interception.

## Scalability

500 keypads per base station channel identity and 31 identities available for 15,500 keypads per room/site.

Firmware resides in high performance microprocessor chips that can be reprogrammed to facilitate easy upgrade during the life of the product.

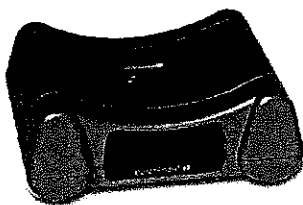
Add keypads to an existing system by simply assigning them to a base station channel and an available address (can be completed automatically or manually).

## Compliance and Patents

FCC, IC, CE certified. Call for details regarding these and other regulatory certifications.

U.S. Patent Nos. Re. 35,449; 5,724,357; 6,021,119; 6,665,000. European Patent No. EP 0 697 773. Other U.S. and foreign patents pending.

## Receivers: OptionFinder® micro+ USB or OptionFinder® G3



Connects to the presenter's PC through USB or ethernet port. Controlled by OptionPower® software applications.

## Dimensions

USB: 3"W x 0.5" H x 0.9" D  
G3: 6.25" W x 2.25" H x 5" D

## Unit Weight

USB: less than 1 ounce  
G3: 9 ounces

## Capacity

500 keypads per channel identity and 31 identities allows up to 15,500 keypads per room.

## Speed

Base station polling cycles are adjustable to optimize speed for group size. For example, a group of 100 keypads can be polled every one-half second, whereas a group of 3,750 can be polled every 2.5 seconds.

## Connections

Attaches to the operator's PC by USB or ethernet connection (USB cable included).

## Power Source

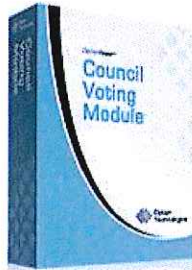
Powered by computer USB connection with 70-130 mA current draw, or by Power Over Ethernet (POE) using midspan and power injector.

- **Accurate vote tallies**
- **Instant results, even with thousands of voters**
- **Flexible Display Configuration**
- **Audit trail capability**
- **Anonymous or Rostered Results**

Amendment 23 - Vote Now

|                    |         |                     |         |                   |         |
|--------------------|---------|---------------------|---------|-------------------|---------|
| P01 Anthony, J., T | Yes     | P02 Cooper, B       | Abstain | P03 Hill, A.      | Yes     |
| P01 Banerjee, T    | Abstain | P02 Geiser, G       | Abstain | P03 Letort, D     | Yes     |
| P01 Deate, K       | Yes     | P02 Geller, H       | Yes     | P03 Moran, H      | Yes     |
| P01 Dwyer, J       | Yes     | P02 Goddard, M      | Yes     | P03 Southworth, C | Yes     |
| P01 Galin, K       | Abstain | P02 Hill, L         | Yes     | P03 Woodward, P   | Yes     |
| P01 Gill, J        | Yes     | P02 Horn, P         | Yes     | P03 Zimmerman, M  | Yes     |
| P01 Lamkin, M      | Yes     | P02 Longden, Jr., D | No      | P04 Chesnut, H    | Yes     |
| P01 Orr, S         | Yes     | P02 SHUL, S         | Yes     | P04 Estess, S     | Yes     |
| P01 Pinn, S        | Yes     | P02 VACANT          | Yes     | P04 Likens, L     | Yes     |
| P01 Vomer, G       | No      | P03 Bergman         | Yes     | P04 McLaughlin, C | No      |
| P01 Weaver, G      | Abstain | P03 Casselmann, C   | Yes     | P04 Plank, C      | No      |
| P01 Wahneke, M     | Yes     | P03 Company, M      | Abstain | P04 Sanchez, R    | No      |
| P02 Wahneke, J     | Yes     | P03 Dempsey, M      | No      | P04 Schneider, P  | Yes     |
| P03 Carder, M      | Yes     | P03 Dixon, O        | Yes     | P04 Schroeder, K  | Abstain |
| P02 Cataldo, H     | Yes     | P03 Fritz, M        | No      | P04 Trozner, K    | Yes     |

Yes = 116 Abstain = 34 Pass



## Council Voting Module™

The Council Voting Module™ is an add-on product for the OptionPower® audience response system. It is designed to facilitate voting and decision making by representative bodies and councils using OptionPower's wireless interactive polling systems.

If accuracy and time are important in your voting processes you will benefit from the precise and efficient capabilities of the Council Voting Module™. The time to prepare, administer and hand-count ballots and votes for resolutions, legislative issues, and motions can consistently be reduced by more than 50%. You will achieve measurable cost savings while conducting an orderly balloting process that satisfies representatives demand for speed and sophistication.

### Key Features

**Flexible Balloting** - Add or remove initiatives and motions for balloting as easily as you edit a PowerPoint slide.

**Recorded Ballots** - Give your voting representatives the ability to instantly cast their vote and tabulate results for the entire assembly in seconds. All data is stored in a relational SQL database and tracked by the identity of the voter. An anonymous mode is included.

**Accurate Vote Tallies** - The participant voting devices are tracked by participant. Voters can change their minds while polling is open. Only the last response from each voter is recorded and tabulated.

**Immediate Results** - Tabulations are available live during polling or immediately after polling is closed. Avoid the expense and time of preparing distributing paper ballots or waiting for manual counts.

**Flexible Display** - Show individual names, districts or precincts along with voting status and vote cast (e.g. Yes, No, Abstain) for each representative during or after the vote. Changes manually or on a timed interval cycle to display results from an unlimited number of voting representatives.

**Rostered Results** - Use the roster tracking feature to enter and manage the identities of voting representatives.

**Results Indicator** - The optional Pass/Fail results indicator may be displayed automatically or on-demand. Immediately determine and display whether votes cast exceed the threshold required for 50%, two-thirds and three quarters majority.

**Report and Export Data** - Transmit results to an easy-to-use Excel file for record keeping and reporting needs.

**OptionPower integration** - Access all of OptionPower's standard audience response features while working in the Delegate Voting Module. Engage your participants in the process by adding interactive content throughout the agenda.





## **#13-44 Request for Proposals**

Town of Arlington, Massachusetts

Due 12-19-2013

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## Executive Summary for the Town of Arlington, MA

Turning Technologies is dedicated to helping government agencies grow stronger by providing the technology needed for officials to collect data and feedback from the community. Our products make it easier for moderators and government officials to be mobile, collaborate with participants onsite and offsite, receive real-time feedback, and generate accurate reports. Turning Technologies' solutions provide an enhanced means to captivate participants, engage in activities and assess understanding. Our technology allows users to receive real-time results and access to reports that can be stored for long-term review.

### Be Better Positioned for Success

The Town of Arlington, Massachusetts will be positioned better for success by providing government officials with Turning Technologies' response or voting systems (clickers), specifically TurningPoint and ResponseCard LCD clickers. The voting system can be integrated into town-hall meetings, neighborhood meetings and any environment where it is important to gather feedback from the community focused on enhancing life in Arlington.

### Engage Participants and Receive Instant Feedback

With Turning Technologies, moderators will be able to engage participants, receive instant feedback and share voting outcomes. Government officials will be able to make data-driven decisions and provide an overall positive impact based on feedback from constituents. The enclosed bid outlines how Turning Technologies will assist the Town of Arlington in achieving its collective goals while gathering feedback from the community.

## About Turning Technologies

Turning Technologies creates leading instructional, assessment delivery and data collection solutions for many environments. Founded in 2002, the company began with the development of response technology that was affordable, user-friendly and better documented so that users could easily grasp its benefits. During its eleven-year history, Turning has deployed over 15 million response devices across government, corporate, higher education, and K-12 class and meeting rooms throughout the world. As the recognized leading provider of assessment delivery and data collection systems, Turning acquired eInstruction in 2013 to expand both its market share and product offerings across all industry segments. eInstruction's diversified solutions include innovative classroom instruction systems, interactive whiteboards, research-based software and professional development that facilitate significantly higher levels of collaboration, engagement and achievement across all stages of the learning process. Based in Youngstown, OH, information on Turning Technologies can be found at [www.TurningTechnologies.com](http://www.TurningTechnologies.com).

### Key Staff

#### Mike Broderick, CEO

Mike is cofounder of Turning Technologies and serves as Chief Executive Officer. Mike began developing applications for the first radio frequency wireless group response hardware soon after its introduction as a partner and president of one of the earliest group response software companies. Throughout his 20 years in the industry, Mike has been one of the leading innovators in the group response industry working and leading efforts in sales, marketing, research and development, as well as product delivery and fulfillment. He has led Turning through remarkable growth and to their current position of dominance in their industry and markets. In addition to his contribution to Turning's remarkable success and multiple product and company awards, Mike is a recipient of

the prestigious Ernst & Young "Entrepreneur of the Year" Award and was inducted into the Northeast Ohio Business Hall of Fame as the first winner of the "Entrepreneurial Spirit Award".

#### Dave Kauer, President and COO

Dave serves as President and Chief Operating Officer of Turning Technologies, LLC. Dave's primary responsibilities include the direct oversight of daily operations at Turning as well as such company departments including Operations, Fulfillment, Administration, Finance, Human Resources, Product Management, Software R&D, Hardware R&D, Customer Support and Quality Assurance. Dave has 25 years of experience in a variety of financial and operating roles with Johnson Controls, Inc. and Insilco Technologies, Inc. He holds an MBA in finance from the University of Wisconsin and he is a Certified Public Accountant.

#### Dr. Tina Rooks, Senior Vice President & Chief Instructional Officer

Dr. Tina Rooks serves as Vice President and Chief Instructional Officer at Turning Technologies. Her responsibilities entail crafting product development strategy, research initiatives and thought leadership across all markets globally. Dr. Rooks oversees the product development teams, including software engineers, hardware engineers and product managers, to assist in designing solutions that meet user needs. With over 16 years of experience in education, she was instrumental in developing the educational consulting team and building the Turning Technologies school improvement initiative specifically for the K-12 market. Dr. Rooks has previously served as a classroom teacher, middle school principal, technology administrator and Vice President of a professional development division for an educational technology company. She completed her Doctorate in Instructional Technology at Pepperdine University. Additionally, Dr. Rooks has a B.S. in Secondary Social Sciences and a M.Ed. in Administration and Leadership.

#### Support Every Step of the Way

If you have a question or need assistance while setting up your new products, a Turning Technologies representative is ready to help you. Turning Technologies provides Technical Support over the phone, via e-mail, through online chat and with a self-service Knowledgebase that includes up-to-date documents. Turning Technologies also offers optional onsite and online professional development and product training to ensure you understand how to maximize the benefits of your new technology.

#### Client List

Some of Turning Technologies' current customers include:

City of Hampton  
Mary Bunting, City Manager  
(757) 727-6392  
[mbunting@hampton.gov](mailto:mbunting@hampton.gov)

Metropolitan Area Planning Council  
Holly St. Clair, Data Services Director  
(617) 451-2770 Ext. 717  
[hstclair@mapc.org](mailto:hstclair@mapc.org)

VHB  
Bob Dubinsky, CIO  
(617) 924-1770  
[rdubinsky@vhb.com](mailto:rdubinsky@vhb.com)

**Additional Customers:**

- City of Acton, MA
- Cape Cod Commission
- Franklin Regional Council of Governments
- Metropolitan Area Planning Council
- City of Dover, NH
- City of Claremont, NH
- Nashua Regional Planning Commission
- Stafford Regional Planning Commission
- City of Hampton, VA
- Richmond, VA
- Alexandria, VA
- Fairfax, VA
- Virginia Beach, VA
- City of Rochester, NY
- City of Paterson, NJ
- Ocean City, MD
- Town of Sanford, ME
- Greater Portland Council of Governments
- Northern Maine Development Commission
- City of Charlotte, NC
- Town of Garner, NC
- Town of Morrisville, NC
- Town of Troutman, NC
- City of Hickory, NC
- City of Gastonia, NC
- City of Lexington, NC
- Town of Cary, NC
- City of Tallahassee, FL

**TOWN OF ARLINGTON  
MASSACHUSETTS**

**#13-44**

**Request for Proposals (RFP)**

The Town of Arlington, Massachusetts (the Town) acting through the Town Manager is requesting proposals from qualified firms for a one-time, staffed, rental of an appropriate electronic voting system for use at its 2014 Representative Town Meeting commencing April 21, for use in as many sessions as the maximum budget of \$10,000 will permit.

Proposals are invited and will be received by the Purchasing Officer, Town of Arlington, Massachusetts on or before **December 19, 2013, 4:00P.M.** at the Town Manager's/Purchasing Office, Town Hall Annex 2nd floor, 730 Massachusetts Avenue, Arlington, MA 02476. Proposals delivered after the appointed time and date will not be considered.

The Town reserves the right to cancel any request for proposals, and to reject in whole or in part any and all proposals, when it is deemed in the best interests of the Town to do so.

Five (5) copies of technical proposal shall be submitted in a sealed envelope marked "Bid #13-44 Electronic Voting System - Technical Proposal" and one (1) copy of the price proposal in a sealed envelope marked "Bid #13-44 Electronic Voting System -Price Proposal."

Adam W. Chapdelaine  
Town Manager  
December 9, 2013

## **1. Introduction**

In its Annual Town Meeting in the Spring of 2013 Arlington's Representative Town Meeting approved changes in Town bylaws to permit, but not require, the use of electronic systems to record, tally, display and archive the individual votes of Town Meeting Members. (See Appendix A, voting section of Town Bylaws.) This action followed an investigation and subsequent proposals by the Town Meeting Electronic Voting Study Committee.

Town Meeting further appropriated a maximum of \$10,000 for FY2014 for the purpose of renting an appropriate system for use at Annual Town Meeting 2014 that commences April 21, for as many sessions as the maximum budget will permit. Annual Town Meeting sessions are Monday and Wednesday evenings from 8 to 11 pm. and typically require 8 to 10 nights to complete the Warrant.

The intent of this appropriation, as expressed in the Finance Committee commentary on its motion that was voted by Town Meeting, is a trial of electronic voting for one Annual Town Meeting in as many sessions as possible, to see if Town Meeting wishes to adopt such a system for future regular use via a longer term rental, or purchase.

The Town is also interested in a credit toward the potential purchase of the rental system from the one-year rental contract, pending a positive reception of the trial by Town Meeting.

## **2. Key dates for RFP response, and overview of the selection process**

RFP Deadline: December 19, 2013, 4:00 P.M.

Award: Within 30 days from deadline.

## **3. Scope of Services**

### **A. Project objective**

The Town of Arrington, Massachusetts ("Town"), is seeking to rent an electronic tally and display system ("System") that uses handheld devices to provide for voting at its 252-member representative Town Meeting where each member is a potential voter. The System typically will operate in the Town Hall Auditorium at 730 Massachusetts Avenue. The Town requires onsite, vendor-supplied personnel to take primary responsibility for operation of the System during the covered Town Meeting sessions.

The System will:

- **Provide a visual vote confirmation to each individual authorized voter** on any item or procedure that may be presented for an electronic vote at sessions of the 2014 Arlington Town Meeting;

*The ResponseCard RF LCD clicker is designed so that participants receive visual confirmation of input. The LCD screen displays response selected, channel setting and battery life.*

- **Tally and display in-progress voting and voting results** to all Town Meeting attendees in varying customized formats and levels of granularity, and

*When choosing the option to poll within Microsoft PowerPoint, the interactive polling slides can be customized and projected just as normal PowerPoint slides. Question and answer text can be customized up to 10 answers.*

- **Create a secure permanent electronic record** of the details of all such voting (such details to be recorded at the level of every vote taken by every specifically identified Town Meeting member).

*Data can be stored within our software or exported and saved within your system. You can store the data in our file format, but create Excel or .csv files to show reports.*

## B. Detailed requirements

The following subsections specify the required System components, services, and capabilities. Responding vendors will be evaluated on how well they meet these requirements; thus it is in the vendors' interest to provide details clearly describing how their systems will address each of the required components, services, and capabilities.

### **Caveats regarding the detailed requirements:**

- When some specified aspect of the System is seen to be desirable by the Town, but isn't deemed to be an essential requirement, the term "prefers" or "preferred" will be used below to indicate that to be the case.
- In cases where a vendor's system includes (potentially unique) capabilities that go beyond the basic requirements in a manner or manners that may be viewed as beneficial to the Town's intended System application (whether or not such capabilities are specifically indicated as "preferred"), the vendor is encouraged to include a description of those added capabilities in its response.
- If a respondent's proposed System does not support a given requirement not indicated as "preferred" (and thus is deemed essential,) the Town may nevertheless, at its sole discretion, consider accepting alternative functionality described in detail



by the respondent, provided the alternative is deemed by the Town to sufficiently fulfill the objective(s) for that requirement.

## B. I System Components and Services

The **System computer** (also referred to as the "operator's computer") will host the software used to develop/customize and project displays, run votes, record and maintain an archive of results, and produce reports. It will interface with the vendor-supplied radio receiver base unit(s) (see below), and with a Town-provided projection system and local cable access television via standard output connectors and VGA or BNC signaling. The System computer (as well as all other System components) should not require Internet connectivity for proper operation.

***Our system does not require an internet connection to poll and store the results.***

Responding vendors shall provide the specifications for the System computer. This should include hardware configuration details as well as the required operating system and any supporting commercially available application software. Vendors shall also specify whether they will provide video signal switching equipment for selecting either the voting system or the Town's hall presentation computer for display at a given time; in either case, video signal switching should be downstream of the standard VGA or BNC output.

***Minimum system requirements for operator's computer are listed below. Mac requirements are available on our website or by request. Turning Technologies does not supply video signal switching equipment.***

- ***Microsoft Windows XP, Vista, 7 or 8 (32 or 64 bit)***
- ***Microsoft Office 2003, 2007, 2010 or 2013 (32 or 64 bit) (for PowerPoint Polling and viewing exported reports in Excel)***
- ***Microsoft .NET 3.5, SP1***
- ***Intel or AMD 2 GHz processor***
- ***512 MB RAM***
- ***120 MB hard disk space***
- ***1024x768 at 32-bit color or higher resolution, 100% DPI***
- ***Standard USB 2.0 port (for USB-based hardware devices)***
- ***Ethernet or 802.11 compatible wireless network card required if ResponseWare is in use***
- ***Adobe Flash Player (for Animated 2D/3D charts)***
- ***Adobe Acrobat Reader (for printing and viewing the help options)***
- ***Java 6 Runtime Environment or higher (for importing RTF, DOC, DOCX and QTI documents and exporting reports to Excel and CSV)***

*Radio receiver base unit(s)* to support reliable, secure, and prompt receipt, storage, and display of votes from up to 252 handsets, and the delivery of confirming responses back to each of those handsets. The respondent shall stipulate for the proposed System the maximum end-to-end time it will take for the performance of that functional sequence for

each voter (i.e., handset vote selection through handset feedback display), and also for the tabulation and display of results at the end of the Town-selected voting period.

*Turning Technologies devices operate on one of 82 fixed non-overlapping channels in the 2.4GHz ISM band. Each channel is 1 MHz wide. The channel is user selectable (programmable), but once it is programmed, it remains fixed until re-programmed. Channel 1 corresponds to 2.401GHz and channel 82 corresponds to 2.482GHz. The effective occupied bandwidth of the devices is only 1MHz, a very small portion of the 83MHz wide ISM band. The transmit power levels for the Turning Technologies devices are very low – less than +4dBm (2.5mW). The receive sensitivity is -85dBm max. The bit transfer rate for the Turning Technologies devices is 1Mbps and with overhead, the total packet duration is less than 265usec which is a relatively short duration.*

*A typical Turning Technologies installation might have one receiver unit and many clickers. All clickers and the receiver unit are programmed to the same RF channel. Our response system supports channels 1-82 and 1,000 participants can be assigned to each receiver, giving the system a maximum of 82,000 participants.*

*Because of their low transmit power, single frequency operation, narrow bandwidth and very short packet lengths, it is not likely that the Turning Technologies devices will cause significant interference with other 2.4GHz devices. With careful planning, interference from other devices can be mostly or completely eliminated, therefore allowing good interoperability with these devices. Effective planning includes maintaining good isolation (distance) between different types of devices and selecting the right operating channels for different devices.*

*Battery-powered handsets for 252 Town Meeting members, plus sufficient additional units to serve as spares. The Town prefers that handset batteries shall be non-rechargeable and of general-purpose type such as AA or AAA; however, the respondent may propose an alternative using custom or rechargeable batteries (along with supplied charging equipment). Vendors must specify the maximum number of simultaneous users (active handsets) that can be supported by their System.*

*The ResponseCard LCD clickers require two coin cell CR2032 (3.0V) lithium batteries. The batteries are included with each clicker and have an average battery life of 6 to 12 months. Spare clickers have been included in the price quote.*

*Storage containers for all System hardware (e.g., handsets, base unit(s)). If the respondent proposes the use of rechargeable batteries, the storage containers shall also accommodate the recharging components, including wiring and charging stations.*

*Storage containers for all hardware equipment have been provided in the price quote.*



*System operation.* The selected vendor will provide onsite staff to take primary responsibility for operation of the System during the covered Town Meeting sessions. Because this is a sensitive initial deployment meant to provide a robust trial of electronic voting in Town Meeting, reliability and smooth operation is especially important. The Town believes this objective can best be met by a vendor-supplied operator(s). While Town IT and other Town staff and appointed volunteers will be available to operate Town-provided systems and to handle administrative requirements (e.g., distributing and collecting handsets), it is expected that their operational knowledge of the electronic voting system will be limited; thus, the onsite vendor representative(s) will be instrumental to the successful operation of the system.

***Turning Technologies' on-site technicians have been included in the price quote.***

Responding vendors should describe the functions to be provided by their onsite staff in detail. Given the need to configure and verify operation of the System hardware and software components prior to each Town Meeting session, and to properly archive the session's voting data and inventory and secure equipment afterwards, it is expected that the onsite support will commence before the official start of each evening's meeting, and will continue for some time after adjournment. Vendors should provide their expectations for total time spent by their staff onsite (number of vendor staff, hours per Town Meeting session). Note that the typical duration of each Town Meeting session, from opening to adjournment is 3 hours.

***Onsite technician will arrive 2 hours prior to meeting (earlier if requested) to distribute keypads, test equipment, and make any final changes to voting slides. During the session, our technician will run the polling slides from his/her machine and will stay afterwards to collect keypads, save session, and distribute reports. Total time spent will likely be 5.5 hrs. They will stay longer if necessary.***

**Training.** The use of the System as solicited in this RFP will be as a trial prior to the potential procurement of a long-term electronic voting system solution for Arlington's future Town Meetings. Responding vendors should propose support for a training plan that is adequate for such a short-term trial, where primary System operation will be provided by the vendor (as specified above). The Town anticipates the need to train assigned IT and administrative staff/volunteers to the degree necessary to properly interface with and help administer the vendor System, and to introduce the Town Meeting members to the System and train them in its proper use during the voting process. Adequate training will be critical to a proper evaluation of the System by Town Meeting and, as such, the Town anticipates devoting its own resources to a training plan to be implemented before the 2014 Town Meeting sessions begin. Vendors should recommend, based on their prior experience, specifically how Arlington should implement the training for the trial system, and explain how they will support that effort.

**Onsite training is available for the Town operators as well as phone, e-mail and webinar support. We will provide user guides, tutorials and recorded webinars at no charge. Onsite training is available at \$950 per day. Phone support is always available at no cost from 7:00 a.m. - 9:00 p.m. EST Monday through Friday.**

With minimal training employees should be able to operate the system. Turning Technologies recommends the operators and content developers attend a training session whether it be onsite or through live online sessions with a Training Specialist.

## B.2 System Capabilities

1. Voting shall be conducted via pre-assigned unique (at the "hardware level") handsets that will be configured to be associated with, and then distributed to, each Town Meeting member. The handset shall support the user entry of one of three voting choices (Yes/No/Abstain), and shall include a display used to confirm the user's votes. Such confirmation shall be of the user votes as actually received by the radio receiver base unit and registered in the System voting results database, i.e., confirmation must be based on feedback received by the handset from the base unit rather than simply being a local echo of user input. Vendors shall describe how this is accomplished.

**The Town of Arlinton may assign a ResponseCard LCD clicker to each individual participant using the Participant List option within TurningPoint. A registration table should be setup at the entrance of the meeting room where participants can sign in and pick up their ResponseCard LCD clicker. The Participant List can be created prior to the meeting assigning the unique Device ID on the clicker to the First and Last name of each participant. If the participant information isn't available prior to the meeting, the same information can be collected at the registration table and the Participant List can be created after the meeting and added to the voting data at a later date.**

**The voter will see the question and answers displayed on the projected screen. They select the corresponding answer on their ResponseCard LCD clicker. Typically they will see:**

1. Yes
2. No



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### 3. Abstain

*Then choose option 1, 2, or 3 on the clicker.*

*The question may have up to 10 answer choices.*

*The ResponseCard LCD clicker will give the participant a visual confirmation their vote has been sent.*

*A Participant Monitor is available to give the operator confirmation the individual votes are being received during the voting session.*

2. The System shall allow, without limit, a voter to change his/her vote during the voting period for each matter, with only the final vote received by the System as of the close of the period being effective.

*The participant can change their answer an unlimited amount of times before polling closes. Once polling closes, the last answer option selected will be accepted. The moderator has the option to repoll a question if necessary.*

3. The handsets must operate reliably and securely within a 56' X 66' auditorium, without interfering with, or being interfered by, cellphone transmissions, 802.1x wireless transceivers, assisted-listening devices, wireless microphones, or other common wireless devices. Vendors should specify the maximum reliable range for the handsets, and should describe technical measures taken to protect the integrity of handset-to-base-station data communication, and to mitigate against interference from/to other wireless systems. Any potential interference interactions with other systems should be described.

*We addressed this capability in the above section and are stating the same response again here.*

*Turning Technologies devices operate on one of 82 fixed non-overlapping channels in the 2.4GHz ISM band. Each channel is 1 MHz wide. The channel is user selectable (programmable), but once it is programmed, it remains fixed until re-programmed. Channel 1 corresponds to 2.401GHz and channel 82 corresponds to 2.482GHz. The effective occupied bandwidth of the devices is only 1MHz, a very small portion of the 83MHz wide ISM band. The transmit power levels for the Turning Technologies devices are very low – less than +4dBm (2.5mW). The receive sensitivity is -85dBm max. The bit transfer rate for the Turning Technologies devices is 1Mbps and with overhead, the total packet duration is less than 265usec which is a relatively short duration.*

*A typical Turning Technologies installation might have one receiver unit and many clickers. All clickers and the receiver unit are programmed to the same RF channel. Our response system supports channels 1-82 and 1,000 participants can be assigned to each receiver, giving the system a maximum of 82,000 participants.*

*Because of their low transmit power, single frequency operation, narrow bandwidth and very short packet lengths, it is not likely that the Turning Technologies devices will cause significant interference with other 2.4GHz devices. With careful planning, interference from other devices can be mostly or completely eliminated, therefore allowing good interoperability*



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*with these devices. Effective planning includes maintaining good isolation (distance) between different types of devices and selecting the right operating channels for different devices.*

4. The handsets shall include a low battery indicator. Battery life for the units must be at least 4 hours. Vendors should specify the expected battery life when the handsets are on and in "ready to vote" status.

*The ResponseCard LCD clickers require two coin cell CR2032 (3.0V) lithium batteries. The batteries are included with each clicker and have an average battery life of 6 to 12 months. The ResponseCard LCD has a battery life indicator on the LCD screen.*

5. If the handsets can support other non-essential System functions (e.g., requesting the attention of the Moderator), these should be specified.

*The device can give "user feedback" to the Moderator. This allows the Moderator to see who has a questions and when they sent in their feedback.*

6. It is critically important that the System will be able to provide reliable service during the covered Town Meeting sessions. Respondents should describe the measures that will be taken to ensure continued operation in the case of failure of handset, radio receiver base unit, or System computer hardware, including the expected quantities of spare unit provisioning. In the case of handset failure (or handset loss by the "owning" Town Meeting member), the vendor shall provide the detailed, step-by-step, process by which the old handset will be replaced by a properly-configured replacement unit that is then recognized by the System as being associated with the same member. The approximate elapsed time for such replacement should be specified. The System must lock out the previously recognized handset unless and until the System operator manually reactivates that handset for some future use by any voter.

*We provide an extra 10% of ResponseCards and an extra receiver in the rare occurrence there may be issues. In the event of a ResponseCard LCD failure, an unassigned device can be given to the participant and the votes can be associated back to the participant after the session has finished. The total time for replacing a device is less than 5 minutes.*

7. All displays to be generated by the system must be legible from as far as 70 feet away when projected on a large screen with dimensions of approximately 8 feet x 8 feet.

*When choosing the option to poll within Microsoft PowerPoint, the interactive polling slides can be customized and projected just as normal PowerPoint slides.*

8. The System shall be capable of generating a customizable display ("Slide") during voting of a 2-line (or more) description of the matter upon which the vote is being taken. Per-member votes of either Yes, No, or Abstain (or Abs), both in text and identified by a unique color, or blank to indicate a non-vote, shall be displayable via multiple Slides at the conclusion of the voting period. Members shall be identifiable by name and precinct number, with a customizable number of member results included per slide.



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*When using TurningPoint within Microsoft PowerPoint, the user adds a new slide and types the question in the title box and the answers in the bulleted text box below. The user can take advantage of Microsoft PowerPoint's features. A question may have up to 10 answer choices. The interactive polling slides can be customized and projected just as normal PowerPoint slides. The participant's contact and demographic information will be collected for each slide when using the Participant List option.*

9. The System shall further allow for suppression of the display of the individual member votes, such that only total Yes, No, Abstain tallies are shown, and shall be capable of displaying the required vote threshold applicable for passage of the matter to which a vote applies, and whether the matter has passed or failed based on that threshold.

*A chart will appear on the slide once polling closes showing the percentage or count of votes for each answer choice. The operator and audience will be able to see if the vote has passed or failed based on the chart. Individual member votes will not be displayed.*

10. The System shall permit ad hoc selection of either displaying or suppressing the display of individual member votes prior to each vote.

*The operator may choose whether or not to display the chart after polling has closed.*

11. The System shall provide that any of the Slides (including any set of Slides to display the voting results and other matters involving display of all the Town Meeting member information) can be advanced on a customizable timed or on a manual basis.

*The operator must manually advance to the next slide.*

12. The System shall provide for Slides that can be prepared by the operator in advance for both the specific matters expected to come before a given Town Meeting session, as well as for more generic matters (e.g., quorum calls) with the latter being able to be reused during Town Meeting -but with the voting data for each use individually identified and retained. Notwithstanding this capability, the System must efficiently support voting on unanticipated matters first arising over the course of the meeting, or changes in the sequence of voting on expected items. Vendors should describe how such entirely new items or changes are supported.

*Slides can be prepared in advance by the operator. Voting sessions can be saved and the slides may be reused during another session. If changes need to be made during the meeting the operator may take the presentation out of slide show mode, make the necessary changes and resume slide show mode. The operator is also able to insert a slide on the fly using the TurningPoint Showbar that floats in the top right corner of the screen, if the user chooses to have the Showbar appear.*

13. The System shall provide the option of including in a Slide a customizable countdown clock that indicates the amount of time remaining during a customizable voting period. Real-time voting information (e.g., the instantaneous number of votes cast, without indicating the current



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Yes/No/Abstain tally) shall be displayable during the voting period. The Town prefers a provision for an indication (e.g., a change in color) during a customizable number of seconds near the end of the voting period. The Town would prefer that the voting count-down time also be included on the handset displays.

***There is an option to display a countdown timer on each question slide. The participants will be able to see the questions, answers and the timer as it count down until polling closes.***

14. The respondent shall present suggested templates that are considered suitable for presentation of the types of Slides that have been mentioned herein on the aforementioned projection screen when viewed from the aforementioned maximum distance.

***Our Training Specialists are able to provide suggested templates and best practices for events.***

15. The System shall provide a secure permanent electronic record of all votes taken, within the operator's computer and available for export to an external device (e.g., a USB "thumb" drive). The record shall contain the Town Meeting members' precinct numbers, names, and their votes along with the description of each corresponding matter voted on and the date & time (to the nearest second) when the voting period for that matter ended. Vendors shall describe specifically how a session's results are stored.

***The data is stored in a session file. The session file may be stored on a USB thumbdrive and will contain the slides, Participant List, and all data collected.***

***There are six types of session reports (Results by Question, Results by Participant, Results Detail, Results by Demographic, Comparative Results and Session Log Report). Each report can be customized by selecting the data options on the right side of the reports window.***

16. Voting data shall be capable of easily being exported via standard non-proprietary formats such as Excel, PDF, Word, and CSV; vendors shall specify the formats supported by their System and shall describe options for generating reports of voting results.

***Reports are exported as a CSV, Excel, or HTML file. Java must be installed if the user wants to export a report as a CSV or Excel file.***

17. The System database on the operator's computer for each Town Meeting session shall have a reversible "lock" that is set at the end of each session so that an explicit, additional, action is required to make that file editable. Correction of improperly recorded votes shall be allowed by the System, with such corrections noted in transaction/audit logs and on any generated reports.

***This option can be sent to our Product Management team as a feature request. Currently, we do not provide a way to track changes that have been made to the session file.***



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18. In general, respondents shall describe security considerations employed within the operator's computer, as well as within the other System components, to limit the ability to modify the voting records and to preserve previous results in the case of a failure of any component of the System.

*In the event of a computer power down, any session should be saved automatically in the backup session folder. In fact, it should prompt the user next time TP is opened that there is previous session data.*

### C. Town of Arlington Responsibilities

1. Town staff will provide, maintain and operate the video display system including a projector and screen which is also utilized for speaker presentations
2. The Town will transmit the standard video output from the System to local cable access television and will operate the video switch between the voting system (operated by vendor-supplied personnel) and the main presentation computer (operated by town personnel).
3. The Town will, if necessary, provide staff or authorized volunteers to assist with the distribution and collection of voting handsets before and after each Town Meeting session.
4. The Town will supply electricity and a desk for the voting administrator.
5. The Town will format the exported voting reports for website and hard copy publication; note, however, that the ease of transforming the System's native output into a form the Town deems suitable for public distribution is a comparative evaluation factor, per section 5 below.

## 4. Submission Requirements and Instructions

### A. Proposal Elements

1. A narrative with appropriate supporting appendices that addresses the requirements and questions enumerated above. Specify any equipment or functions that would be the Town's responsibility not already enumerated above. *Pages 3 - 4*
2. Please specify if a returnable sample of the proposed voting handset, for use in our evaluation of your proposal, is possible. *Included*
3. Provide contact information for at least 3 references, with at least one from a municipal body using a comparable system and support services for comparable purposes. *Page 5*
4. Please outline your availability for local (in-person) and/or remote system demonstration and interviews. *Available at any point after January 15, 2014*



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5. Summarize your company's history, key staff, relevant experience with other municipalities, and other information pertaining to your firm's qualifications and capabilities. *Pages 3 - 4*
6. Explain how your solution differentiates you from other vendors and why we should choose your company.

*1. No software licensing fee. The software can be installed on any number of computers, allowing users to create interactive presentations.*

*2. Native to Microsoft PowerPoint. While others say their software is integrated with MS PPT, TurningPoint is the only polling solution that is truly native to PPT. This makes it more user friendly and intuitive than competitors' products.*

*3. Free training and support. Our support team is available from 7 AM – 9 PM Monday through Friday.*

*4. TurningPoint is the most widely used response system in the world – more users than #2 and 3 combined; because it is easy to use and functional.*

*5. Reporting capabilities and functionality.*

*6. Poll in any environment. Polling is not exclusive to MS PPT. TurningPoint can be used for polling with any software application.*

*7. ResponseWare – many communities use our ResponseWare application to allow residents to submit their responses from their homes, while viewing meetings on a local access television station or via the internet. Remote responses are captured and displayed along with those being collected with ResponseCard keypads. This capability is available should the Town of Arlington wish to use it in the future.*

7. Confirm your ability to provide service on the scheduled dates for Annual Town Meeting, indicating any specific dates you would be unable to provide service (Town Meeting commences April 21, 2014 and meets Mondays and Wednesday evenings for 8 to 10 total sessions).

*We will provide service for any needed dates.*

## B. Proposal instructions

Five (5) copies of technical proposal shall be submitted in a sealed envelope marked "Bid #13-44 Electronic Voting System - Technical Proposal" and one (1) copy of the price proposal in a sealed envelope marked "Bid #13-44 Electronic Voting System -Price Proposal"

## 5. Evaluation Criteria

Responding vendors who confirm their ability to provide service (per Section 4.A.7) will be evaluated against competing proposals on the following comparative criteria:



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1. QUESTION ONE: Compliance with information requested by this RFP and demonstrated understanding of the Town's objectives and needs as evidenced by the content of the proposal.
2. QUESTION TWO: Extent to which the vendor's capabilities and experience, as described in the proposal and verified by the References, demonstrate qualifications and capabilities to provide the services.
3. QUESTION THREE: Degree to which vendor meets or exceeds the stated technical, functional, training, operating and support requirements, as described in the proposal.
4. QUESTION FOUR: The proposed solution's demonstrated "ease of use", efficiency and speed for town meeting members, voting administrator, Moderator, and town IT staff in all aspects of operation, including but not limited to:
  - a. Handset operation and voting confirmation feedback
  - b. Projected voting results
  - c. Creating and amending voting slides
  - d. Re-voting
  - e. Handset replacement by spares
  - f. Conversion of voting report output to formats suitable for website and print reports
5. QUESTION FIVE: Confidence level that vendor can deliver the scope of services and with high reliability and security, as evidenced by the proposal and its supporting documentation, inquiries to references, vendor interviews, and (if applicable) vendor demonstrations.
6. QUESTION SIX: Degree to which the vendor offer a "competitive edge" that sets it apart from other submissions.

## Contact Information

- Greg Alexander, Senior Account Manager  
Direct: 330-884-6078  
[galexander@turningtechnologies.com](mailto:galexander@turningtechnologies.com)
- Laura Frenz, Program Manager  
Direct: 330-884-6034  
[lfrenz@turningtechnologies.com](mailto:lfrenz@turningtechnologies.com)
- Customer Support  
Monday - Friday, 7:00 a.m. - 9:00 p.m. EST  
1-866-746-3015  
[support@turningtechnologies.com](mailto:support@turningtechnologies.com)



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# CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity, or group of individuals.

Greg Alexander

(Signature of individual submitting bid or proposal)

Greg Alexander

(Name of individual submitting bid or proposal)

Turning Technologies

Name of Business

12-17-13

Date

Pursuant to M.G.L. Chapter 62C, Section 49A, I certify under the penalties of perjury that I have complied with all laws of the commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

27-3212022

Social Security Number or  
Federal Identification Number

[Signature]

Signature of Individual or Responsible  
Corporate Officer and Title

**NON-COLLUSION FORMS  
MUST BE SIGNED AND  
SUBMITTED WITH BID**