

Electoral Commission's response to the London Elects document *Manual Count – vs – electronic count: a cost benefit exercise*¹

1. Background

Electronic counting (e-counting) was used at the Greater London Authority (GLA) elections in 2000, 2004 and 2008, as well as at the 2007 Scottish Parliamentary and local elections. It has also been used at various Scottish local government by-elections since 2007 and has been piloted at a number of English local elections since 2000.

The European Parliamentary election in 2009 for the London region was counted manually. Next year it is possible that a UK Parliamentary general election will be held on the same day as local government elections across London (as well as other parts of England). These elections will be counted manually, with some counts being undertaken on the Thursday night and others starting on the Friday.

2. Key principles to be observed in counting votes

The system of counting votes at an election and the procedures put in place to oversee and manage that process are crucially important in establishing and maintaining public confidence in elections. In particular, any method of counting votes should reflect a number of key principles:

- **Transparency:** this means that representatives of political parties, candidates, agents and other observers should be able to witness what is happening and that the count process and progress should be clearly explained to them. If counting electronically, then external auditing mechanisms should be applied to ensure transparency.
- **Security:** ballot papers and ballot boxes should be secure throughout the process. It should not be possible to add or remove ballot papers to or from the count process.
- **Accuracy:** this will depend on clear and robust procedures, well-trained staff, suitable auditing and checking processes.
- **Secrecy:** it is essential that the identity of a voter cannot be revealed during the count.
- **Accountability:** roles and responsibilities within the counting process should be clearly defined and understood by all involved in the election. Rules for adjudicating and rejecting ballot papers should also be

¹ Considered by the Greater London Returning Officer's project board, 3 June 2009

applied consistently and understood by all. Outsourcing any part of the electoral process does not mean outsourcing ultimate responsibility for it.

- Appropriate resources: as well as staffing issues and available budget, this relates to the importance of ensuring value for money and meeting the expectations of stakeholders regarding the outcome of the count, including timing, accuracy and efficiency.

3. Previous e-counting recommendations

The Commission's response to Ron Gould's report on the 2007 Scottish Parliamentary and local elections made a number of recommendations regarding e-counting, which reflect the importance of the principles highlighted above. These recommendations are set out below:

- The UK Government should undertake and publish a cost-benefit analysis for the use of electronic counting, and consult widely on the findings.
- The UK Government should consult on and finalise an implementation strategy for electronic counting, setting clear milestones for establishing procedures for testing, security, and stakeholder assurance.
- The UK Government should produce an analysis of the modifications required to electoral law to allow for electronic counting to be undertaken with all the transparency and safeguards currently in place for manual counting, including those for adjudicating and rejecting ballot papers and consulting widely on the necessary amendments to legislation.
- The Commission should produce comprehensive best practice guidance on the management of electronic counting processes, including risk assessment, contingency planning, preparation of manual backups and a design for elector and stakeholder consultation.
- The UK Government should make the necessary amendments to section 6A-6F of the Political Parties, Elections and Referendums Act 2000, to guarantee full access to all relevant parts of any e-counting system or process for accredited observers.

We reiterated these points in our report on the 2008 GLA elections and also made the following recommendations to improve the transparency of the e-counting verification process:

- The electronic counting system must allow Returning Officers or their staff to record the reasons for any verification discrepancies, or to correct the original ballot paper account figures.

- Returning Officers should be required to provide a verification statement for every ballot box to any candidates, agents or observers present before those ballot papers can be counted.
- Candidates and agents should take the opportunity to review verification statements where provided.

We share others' disappointment that the UK Government has not yet responded to our 2008 recommendations.

4. E-counting at the 2012 elections in London

On 9 June 2009 Leo Boland, the Greater London Returning Officer (GLRO) wrote to a number of organisations including the Electoral Commission, noting that despite his support for a national framework for e-counting as a means of increasing public confidence, such a framework was unlikely to emerge in the near future; and informing us of his proposal to start tendering for the contract to count the 2012 GLA elections electronically, on the basis of a cost-benefit assessment comparing manual with e-counting.

The GLRO asked us for comments on the cost benefit assessment which he had taken into account in arriving at his current proposal.

Representatives of the Electoral Commission were also invited to attend an e-counting roundtable discussion on 23 September at City Hall.

The tender

The letter of 9 June states that 'approval in principle' has been given to begin the tender process to electronically count the 2012 GLA elections but that the contract will only be awarded if the following issues – which relate to two of the principles, resources and transparency highlighted above - are addressed:

- Affordability
- The cost not being significantly or disproportionately more expensive than manual counting
- Achieving enhanced transparency of the process for candidates and agents
- Securing improved progress screen displays at count centres.

Resources: affordability and cost compared with a manual count

It is ultimately for the GLA to decide the level of resources that it is willing to provide for elections. However, appropriate resources need to be made available to run an effective count, i.e. one that complies with the principles outlined above. We therefore assume that, in taking the decision in principle

to count electronically, the GLRO is satisfied that the extra resources required for an e-count are not significant and are proportional to the perceived gains, based on the current cost-benefit assessment.

However, having studied the cost-benefit assessment, we are concerned that there are potentially a number of gaps that suggest the advantages of e-counting may have been overstated. For example, it was assumed that e-counting was free from human error. Conversely, the assumptions made about the speed and accuracy of manual counting seem overly negative. Also, important safe-guards, such as preparing a manual count as a back-up and the manual checking of a random sample of ballot papers do not appear to have been considered when costing e-counting.

Therefore, we would suggest that a determination that e-counting is affordable and that the cost is not significantly or disproportionately more than that of manual counting cannot be made without undertaking further analysis of the costs and benefits which takes into account these and other points (see below).

While we agree that if e-counting is to be used at the 2012 GLA elections then the tender process will need to commence soon, we believe that simultaneously a more robust cost-benefit analysis should be undertaken. The nature of this second analysis is considered further below. The new cost-benefit analysis could then be used to determine whether an e-count that meets the principles outlined above compared favourably with a more developed model of a manual count.

Recommendations for further cost-benefit analyses

It is claimed that e-counting is more expensive yet quicker than a manual count. Clearly, however, either method of counting could be made quicker if more resources are available.

A fairer comparison of costs could be made if all other factors were made equal – i.e. the time allowed for count, the expected level of accuracy and number of venues. Factors such as staffing levels and training would be varied in order to make these factors constant across the two counting methods. The relative cost of each method could then be more accurately assessed.

Alternatively, the timing of the count and the number of count centres could be kept constant, with the cost of achieving a certain count-speed at the required accuracy being the variable. Either of these methods would provide a fairer comparison of manual and e-counting than the June 2009 cost-benefit analysis.

We strongly recommend that the cost-benefit analysis should be repeated but two analyses should be undertaken: one which considers the relative speed of the two methods and one that considers the costs of producing the same outcome using the two methods. These analyses could be subdivided so as to

make assessments of the effect of a centralised count vs. local counts on each counting method.

	GLRO's analysis	Cost constant	Time constant
Constants	None	Cost, accuracy, number of venues	Time allowed, accuracy, number of venues
Variables	Cost, time taken, accuracy, number of venues	Time taken	Cost

We recommend that the GLRO should undertake the analyses described above before taking a final decision to award an e-counting contract. In the meantime, the GLRO should also make plans for a manual count, in case it is found that e-counting cannot be undertaken with sufficient transparency at an acceptable cost.

The Commission would be happy to assist the GLRO with these new analyses in order to address the issues of transparency and cost. As stated in our response to the Gould report, we will offer advice and publish guidance on e-counting, if that is the method to be used.

The e-counting market

We support the concerns raised at the meeting of 23 September based on the assessment that there are probably only two companies who could realistically tender for the 2012 e-counting contract. Such a small market may make it more difficult for the GLRO to undertake a competitive tender process that secures value for money. This is further exacerbated by there being Scottish local elections on the same day, which may also be e-counted as the single-transferable vote will be used.

With only two companies in the market it is likely that either one company will be awarded both contracts, which raises capacity issues; or each company will be awarded one contract each, potentially allowing the e-counting companies a disproportionate level of control over the market.

We recommend, if an e-counting contract is awarded, that it covers only the 2012 GLA elections. We would urge the UK Government to put in place national guidance for e-counting and assume that the scanning technology will have improved and a wider range of suppliers will be available in time for the tender for the 2016 contract. We acknowledge that this may not represent value for money in the long-term but feel that, in the absence of a national framework for e-counting, a multi-election contract could be unwise. If a decision is taken to enter into a multi-election contract, we strongly recommend that maximum flexibility is built in to take account of future developments.

Transparency

Of the key principles listed in Section 2 of this paper, transparency has consistently been raised with regard to e-counting. Many of the transparency issues with e-counting should have already been addressed at a national level. We have, since 2007, been calling on the UK Government to consult on and publish an electoral modernisation strategy, to undertake a cost-benefit analysis of e-counting and to consider the legislative changes required to provide for a suitable transparent e-counting process.

We believe that there are considerable risks in undertaking a large scale e-counting exercise in the absence of such a national framework and that the current cost-benefit analysis by GLRO does not sufficiently fill the gap created by this absence.

Generally, the Commission was concerned that the count process and layout of the count-centres at the 2008 GLA elections did not allow sufficient access to and understanding of the process for candidates and agents.

For the Commission, one area of particular concern was the ballot box verification process, as there were many discrepancies between the totals given by polling stations and those recorded by the scanners. We are also concerned that Mayoral votes from two ballot boxes were not transmitted to the central count at City Hall.

We welcome the commitment made by the GLRO at the roundtable meeting on 23 September 2009 to consider improved access to the scanning software, including open-source code, and the manual checking of a sample of ballot papers. We consider such measures to be vital to ensure public confidence on the e-counting process.

Further consideration should be given to the number of ballot papers that should be manually checked and the action to be taken if the manual and e-counting tallies do not match. The tenders for e-counting the 2012 GLA elections must clearly address how the contractor would address these issues.

We appreciate that candidates, agents and the media find progress screens useful. However, improvements to these should form part of a wider consideration of the transparency of the process and the ability of those present to understand the count.

**The Electoral Commission
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