

Part 1

Introduction

Introduction (Part 1)

This part introduces the Commission and its role generally and provides the background for this report. The work of the Commission and the approach taken to carrying out this work are described in *Part 2*. The details, findings and conclusions of the Commission's work are set out in subsequent parts of this report.

Appendix 1 provides an overview of the main components of the chosen system and their context, together with an outline of how the system would be deployed during elections in Ireland. *Appendix 3* provides a technical description of the system.

1.1 About the Commission

The Commission was established by the Government of Ireland in March 2004 to report to the Ceann Comhairle (the Chairman of Dáil Éireann) on the secrecy and accuracy of the Nedap-Powervote electronic voting system chosen for use at elections and referenda in Ireland – hereafter described as the “chosen system”. It was also open to the Commission to review tests already undertaken to validate the chosen system, to have further tests undertaken and to invite and consider submissions. Five persons were invited by the Government to become members of the Commission. The terms of reference and membership of the Commission are set out earlier in this report.

The Commission was subsequently placed on a statutory footing by the Electoral (Amendment) Act 2004 enacted in May 2004 and the relevant provisions of this Act are set out in *Appendix 2*. An order of the Government made under this Act and approved by both Houses of the Oireachtas in June 2004 also forms part of the Commission's terms of reference as set out earlier in this report.

1.2 About this Report

This second report deals with work of the Commission carried out between June 2004 and July 2006. The Commission has previously presented an interim report and a first report dealing with its earlier work.

Background and Previous Reports

Following its establishment in March 2004, the Commission was required to make a report, not later than 1 May 2004, on the secrecy, accuracy and testing of the chosen system in the context of its proposed use at local and European elections and a referendum in June 2004.

In its interim report⁶ presented in April 2004, the Commission concluded that it was unable to recommend use of the chosen system at the June elections and referendum as proposed. This conclusion was based not on any finding that the chosen system would not work, but on the finding that it was not proven at that time to the satisfaction of the Commission that it would work.

⁶ Interim Report of the Commission on Electronic Voting on the Secrecy, Accuracy and Testing of the Chosen Electronic Voting System ISBN 0-7557-1927-1 (available from Government Publications or on line at www.cev.ie).

This conclusion and the Commission's other observations and recommendations remained unchanged in the Commission's first report⁷, presented subsequently in December 2004. The first report contained full details of the work underpinning the earlier interim report, but which the Commission had refrained from presenting until an opportunity to review and comment on this work had been offered to various parties identified or mentioned in the work, including the Manufacturers of the chosen system.

Request for Further Reports

Meanwhile, in June 2004, the Houses of the Oireachtas approved an order made by the Government under section 22 of the Electoral (Amendment) Act 2004, formally requesting the Commission –

- to report further on the work envisaged by the recommendations of its interim report on the secrecy, accuracy and testing of the chosen system, and
- to include in such report a comparative assessment of the chosen system and the current paper system of voting.

The work of the Commission on these matters is accordingly presented in this report.

Report Scope

In accordance with its terms of reference, the Commission has considered the secrecy and accuracy of the chosen system and reviewed the tests undertaken to validate it. The Commission also carried out its own further tests and examined procedures for deploying the system at elections in Ireland.

A particular feature of the Commission's work in the immediate period following its establishment on 1 March 2004 was the requirement to make a report before 1 May 2004, i.e. within two months, in relation to the proposed use of the chosen system at local and European elections and a referendum in June 2004.

In presenting its interim report on 30 April 2004, the Commission indicated that, while its work in relation to the chosen system was incomplete, it was nonetheless in a position to make a report at that time on the basis that the threshold of evidence for recommending against the use of the system was considerably lower than that which would be necessary to make a positive recommendation.

In order to meet the requirement of the order approved by the Houses of the Oireachtas in June 2004 requesting the Commission to make a further report on the chosen system, it was necessary for the Commission to broaden and deepen its knowledge of the system. The scope of this work and the Commission's approach to undertaking it are described in *Part 2*.

⁷ First Report of the Commission on Electronic Voting on the Secrecy, Accuracy and Testing of the Chosen Electronic Voting System ISBN 0-7557-7028-5 (available from Government Publications or on line at www.cev.ie).

Report Structure

The structure of this report is as follows:

- Introduction (*Part 1*)
- Work of the Commission (*Part 2*)
- Technical Aspects and Testing of the Chosen System (*Part 3* and *Appendix 3*)
- Physical and Operational Security Aspects of the Chosen System (*Part 4* and *Appendix 4*)
- Comparative Assessment of the Chosen System and the Paper System (*Part 5* and *Appendix 5*)
- e-Voting Best Practice: Council of Europe Recommendation (*Part 6* and *Appendix 6*)
- Summary and Conclusions (*Part 7*)
- Recommendations on the Chosen System (*Part 8*) and Electronic Voting (*Part 9*)

An overview of the Commission's work (presented in detail in *Parts 3* to *6* as indicated above) is provided in *section 2.4* of *Part 2*.

Definitions

The following terms are used in this report with the following meanings:

- “the Commission” means the Commission on Electronic Voting;
- “secrecy” and “accuracy” have the meanings assigned in *section 2.2* of *Part 2*;
- “the chosen system” or, as appropriate, “the system” means the Nedap-Powervote electronic voting system as described in *Appendix 1* and *Appendix 3*;
- “the Department” means the Department of the Environment, Heritage and Local Government;
- “the Manufacturers” means Nedap-Powervote, that is, Nedap NV and Powervote Ireland Ltd. as joint manufacturers and suppliers of the chosen system as referred to in *Appendix 1*.

1.3 Report Status

Subject to any further order of the Government that may be approved by the Houses of the Oireachtas requesting the Commission to make further reports as provided by section 22 of the Electoral (Amendment) Act 2004, this report is envisaged by the Commission to be its final report on the chosen system as currently proposed and in the context of the Commission's terms of reference.

1.4 Acknowledgements

The Commission would like to thank all those who have contributed to its work in preparing this report and its earlier reports. The many submissions received from members of the public were helpful and informative to the Commission while extensive and valuable advice was also provided in the course of the work by the technical and other experts engaged by the Commission. The Commission also gratefully acknowledges the cooperation and courtesy of the Department and the Manufacturers at all stages during its work.

