

Legislative Council Panel on Constitutional Affairs

Online Voter Information Enquiry System

Introduction

This paper seeks Members' views on the proposed design of the Online Voter Information Enquiry System (OVIES) which is an electronic platform to facilitate the public to check their voter registration (VR) particulars.

Background

2. At present, in accordance with the electoral law, the Registration and Electoral Office (REO) follows the timetable as set out in the table below in publishing the following VR documents for public inspection and handling claims and objections for each VR cycle -

| | Non-District Council Election Year¹ | District Council Election Year¹ |
|--|---|---|
| Publication of Provisional Register (PR) | not later than 15 June | not later than 15 August |
| Publication of Omissions List (OL) | not later than 15 June | not later than 15 August |
| Deadline for making claims and objections | 29 June | 29 August |
| Publication of Final Register (FR) | not later than 25 July | not later than 25 September |

¹ At the meeting of the Legislative Council Panel on Constitutional Affairs held on 18 November 2013, the Administration recommended extending the claims and objections period for voter registration during a VR cycle by 10 days to allow more time for the public to inspect the PR and OL and make claims and objections, and setting aside 4 additional days for the Revising Officer to arrange hearings of claims and objections (see Panel paper CB(2)268/13-14(03)). It is proposed that in a non-DC election year, the PR and OL will be published not later than 1 June and the deadline for making claims and objections will fall on 25 June, while the respective deadlines will be not later than 1 August and 25 August in a DC election year. Panel Members in general supported the recommendation at the meeting. The Administration will introduce the legislative amendments later in the current legislative year. The proposed amendments will be implemented from the 2015 VR cycle onwards.

3. As set out in the table above, the PR and the OL are published for public inspection for two weeks up to 29 June in a non-District Council (DC) election year or 29 August in a DC election year. During this two-week period, any person whose application for registration has been rejected or whose name has been put on the OL may lodge a claim with the Revising Officer for inclusion/reinstatement of his registration. Any member of the public may also lodge an objection to the entries in the PR. Registration particulars contained in the above-mentioned VR documents include the names, principal residential addresses and respective constituencies of the electors concerned. At present, the public may inspect the registers of electors in person during office hours at the REO or the public enquiry service centres of the 18 District Offices (DOs); or make telephone calls to the REO's enquiry hotline (2891 1001) during office hours to ascertain their registration status. Views have been received that these avenues are not user-friendly enough because they require the public to visit the concerned offices in person or to make enquiries during office hours. Operational experience also shows that there is a great demand for voter information checking prior to an election (i.e., from the publication of PR and OL to polling day), putting great pressure on the REO's telephone hotline.

Proposed System

4. To provide an additional user-friendly means to facilitate electors to check their voter registration particulars, we propose to launch an online voter information enquiry system, i.e., the OVIES. The information to be provided through OVIES will be the same information contained in the VR documents as required under the electoral law. OVIES will operate round the clock. An elector may log in the system anytime anywhere to view his own VR particulars. This will facilitate electors to check their latest VR particulars and, if required, take timely action to update their particulars by submitting relevant application forms. We expect that the launching of OVIES, coupled with the extension of the inspection period of the PR and OL, will go a long way in facilitating electors to keep their VR particulars up-to-date and thereby enhancing the accuracy of the FR.

Key Functions of OVIES

5. OVIES will be an Internet-based enquiry system. After logging in, a registered elector may view his own registration particulars as appearing in the FR/PR/OL currently in force. The main checking functions of OVIES are summarised as follows -

- (a) a member of the public can check whether he is an elector. If he is not an elector, OVIES will prompt him to submit an application for VR;
- (b) an elector can check whether his VR particulars are up-to-date. If the elector finds the VR particulars not up-to-date, OVIES will prompt him to submit an application to update his registration particulars before the statutory deadline. If the elector wishes to update his particulars online, OVIES will direct the elector to the existing online application system whereby he can update his particulars online with the aid of a digital certificate. Alternatively, he may download an application form and submit the signed form to the REO by post, fax or email; and
- (c) an elector can check whether he is put in the OL. If an elector is on the OL, OVIES will display a warning message to alert the elector and remind him to lodge a claim to reinstate his registration as appropriate.

6. In addition to the checking functions above, OVIES may also serve as a platform to disseminate to registered electors up-to-date polling-related information, such as the polling date and hours of the upcoming election, name and address of the assigned polling station, etc. This will greatly facilitate the provision of polling-related information to electors in the run-up to an election and alleviate the pressure on the election hotline.

Data Protection

7. We attach great importance to system security of OVIES, given the volume and sensitivity of the data involved. According to the initial design of OVIES, the servers of the system will be hosted in the data centres managed by the Office of the Government Chief Information Officer (OGCIO), protected by firewalls and an intrusion detection system which monitors network or system activities to identify and prevent malicious violation. Besides, all the data in the system will be encrypted in compliance with the prevailing governmental security regulations. The design and operation of OVIES will comply with the regulations, policy and related security guidelines on implementation of Government information technology systems as formulated by the Security Bureau and OGCIO. Furthermore, all data pertaining to the HKID card numbers of electors, which are the most sensitive part of the data to be provided through the online platform, will be hashed up² to make them irrecoverable in

² Hashing is a process to transform a text into a hashed value by the use of non-reversible hash function which is a one-way operation. The hashed value is a message digest which cannot be used to reconstruct the original text.

the unfortunate event of unauthorised access or data leakage. When taking forward the project, we have consulted the Privacy Commissioner for Personal Data on the conceptual design of the proposed system with respect to protection of personal data. The Commissioner has expressed no objection to the provision of the platform to provide electors with an electronic access to their own registration particulars which are already available on the registers, and advises the REO to implement adequate protection measures to ensure the security of the platform. We will undertake a third-party Privacy Impact Assessment³ to ensure that both the system design and the related handling procedures comply with the prevailing information privacy principles under the Personal Data (Privacy) Ordinance (Cap. 486). In addition, we will commission a separate Information Technology Security Risk Assessment⁴ to ensure that system control measures are fully commensurate with the risks to which the platform system will possibly be exposed.

Access to OVIES

8. To ensure protection of personal data and to guard against possible abuse, a person who wishes to log in OVIES to make an enquiry on his own VR particulars will be required to go through an admission control procedure to authenticate his identity, before he can access the information. On the means of authentication, we have considered the following options -

- (a) to require the enquirer to use a digital certificate (i.e. a digital certificate required under the Electronic Transactions Ordinance (Cap. 553) for logging in the system;
- (b) to require the enquirer to register with OVIES beforehand and, upon successful registration, use an assigned password for logging in the system; or
- (c) to adopt a two-tier verification algorithm. The enquirer needs to input his name and HKID card number in full. If information

³ Privacy Impact Assessment is a systematic process for evaluating a system in terms of its impact on privacy. The objectives of the assessment include examination of the system design with reference to the Personal Data (Privacy) Ordinance, evaluation of the impact on personal data privacy before the system rollout, addressing the privacy issues identified in the process and provision of solutions or safeguards in the system development stage.

⁴ Information Technology Security Risk Assessment is a process for evaluating the security risks related to the use of information technology with focus on the infrastructure design including the setup of anti-virus system, firewall configuration and system access control mechanism. The objectives of the assessment are to examine the overall security controls of the system, identify the security risks related to the use of information technology and provide recommendation on rectifying the identified security risks to strengthen the level of security protection.

matches a particular record in the database, the enquirer will be prompted to input second-tier information pertaining to his registered addresses (e.g., road/street name, road/street number and estate/building name) for second-level verification. For a corporate elector, the business registration number of the body and/or its other registration particulars would be required instead for the second-level verification.

9. In considering the above three options, we need to strike a careful balance between user-friendliness and the need to guard against possible abuse. While option (a) represents theoretically the most risk-free approach amongst the three options, the use of digital certificates for electronic transactions is not popular in the community and this will hinder the user-friendliness in using OVIES⁵. Option (b) appears to be less cumbersome than option (a) but the pre-registration requirement together with the need to keep a log-in password might still be regarded by the public as inconvenient, particularly since most members of the public have no need to access the online platform regularly. On balance, we consider option (c) more practicable and realistic because it is more user-friendly while exercising a reasonable admission control through the adoption of a two-tier verification system. The review of the system design and development through Privacy Impact Assessment and Information Technology Security Risk Assessment will ensure the adequacy of system protection measures. Members may refer to **Annex** for a conceptual workflow of OVIES under option (c).

Financial and Staffing Implications

10. The cost of developing OVIES is estimated to be \$2.78 million and charged to the block allocation Subhead A007GX “New Administrative Computer Systems” under Head 710 Computerisation of the Capital Works Reserve Fund. The annual recurrent expenditure for maintaining the operation of the system and relevant staff cost is estimated to be \$350,000 and will be absorbed by the REO under existing resources.

⁵ There are about 63,000 persons possessing digital certificates in Hong Kong.

Implementation Schedule

11. We propose to implement OVIES in two phases to implement the functions set out in paragraphs 5 and 6 above respectively. In the first phase, OVIES will enable electors to check their VR particulars as published in the FR/PR/OL in force. In the second phase, the additional function to disseminate polling-related information to electors will be launched.

12. Subject to any views Members may have, the construction of OVIES will commence in the first quarter of 2014. Having regard to the time required to set up the platform, we plan to launch the first phase of the system in the third quarter of 2014 after the publication of the 2014 FR so that the public can start using and familiarizing themselves with the use of OVIES in the VR cycle preceding the 2015 DC Election. Subject to the progress of the implementation of OVIES, the second phase is scheduled to be launched in the 2015 DC Election to provide polling-related information to electors.

Way Forward

13. Members are invited to provide their views on the proposed system.

**Constitutional and Mainland Affairs Bureau
Registration and Electoral Office
January 2014**

Workflow of the Two-tier Access Control for Using OVIES

