



政制及內地事務局
政府總部
香港添馬添美道2號
政府總部東翼

CONSTITUTIONAL AND MAINLAND AFFAIRS BUREAU
GOVERNMENT SECRETARIAT
EAST WING
CENTRAL GOVERNMENT OFFICES
2 TIM MEI AVENUE, TAMAR
HONG KONG

Our Ref: C1/30/22

Tel. No.: 2810 2908
Fax No.: 2840 1976

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Ms Joanne MAK
Clerk to Panel on Constitutional Affairs
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

Dear Ms Mak,

**Meeting of Panel on Constitutional Affairs
Launching a pilot scheme of electronic counting in the
2020 Legislative Council General Election**

At the meeting of this Panel on 18 February 2019, Members requested the Constitutional and Mainland Affairs Bureau to provide written response on details concerning two aspects of the pilot scheme of electronic counting to be implemented in the 2020 Legislative Council (“LegCo”) General Election. We herewith provide supplementary information as follows –

Budget for the Pilot Scheme

Hon Au Nok-hin enquired about the actual expenditure for renting electronic counting machines in the 2016 Election Committee Subsector (“ECSS”) Ordinary Elections at the meeting. According to the record of the Registration and Electoral Office (“REO”), electronic counting machines were hired for counting the votes with the aid of the Optical Mark Recognition system in the Central Counting Station in the 2016 ECSS Ordinary Elections. The relevant total expenditure was about \$1.6 million.

As for the proposal to launch a pilot scheme of electronic counting in the 2020 LegCo General Election, as we pointed out at the meeting, the budget for implementing the pilot scheme hinges on the quantity and model of counting machines to be hired eventually, expenditure of additional manpower, costs of technical support, etc. We will formulate a detailed budget at a later stage.

Fairness and Security of the Electronic Counting System

Hon Cheng Chung-tai enquired at the meeting about the measures to be taken by the REO to ensure the integrity and security of the electronic counting system in the pilot scheme of electronic counting in the 2020 LegCo General Election. REO plans to make reference to the arrangements in the 2016 ECSS Ordinary Elections and adopt a host of independent audit services to ensure the fairness and information security of the electronic counting system. The relevant arrangements include –

- (a) Independent System Testing and Quality Assurance Services: REO will appoint independent system testing and quality assurance services to conduct various user acceptance tests for the electronic counting system (including all counting machines), and submit progress reports, relevant testing data, test incident reports, etc. to REO at a regular interval. The relevant services aim to have the reliability of the counting system audited and confirm that its operation is up to the requirement of REO as well as the latest Government guidelines, international standards and guidelines on industrial best practices.
- (b) Independent Computer Audit: To ensure that the election will be conducted in an open, fair and honest manner, REO will appoint an independent computer audit firm to perform computer audit in relation to the level of stability of the entire electronic counting system and monitor the fairness, security and accuracy of the data maintained by the system. The services ensure that the system will meet all the relevant requirements by verifying that all the counting machines can accurately recognise the “✓” chop on the ballot papers as required by the law and sort the ballot papers according to the choice marked by electors on each ballot paper before the election. Besides, the computer audit firm is required to verify that

the relevant counting system has reached an ultimate recognition accuracy of at least 99.99% before the election as required by REO in the tender documents. REO will require the company to monitor the entire counting process at the Central Counting Station on the day of the election, including verifying the initialisation process of the electronic counting system, observing the process of scanning the ballot papers by the counting machines, as well as monitoring the process whereby the counting results will be consolidated by the electronic counting system. After the election, the said firm is also required to submit a monitoring report to REO.

- (c) Independent Information Technology Security Risk Assessment and Audit Services: REO will appoint independent information technology security risk assessment and audit services to undertake risk assessment for the electronic counting system (including all counting machines) and the related data to be processed with the use of information technology, and make recommendations on the ways of enhancing the security measures in relation to the relevant system and data. The relevant services aim to verify that the data of the system and relevant information security risks have satisfied the latest Government guidelines, international standards and guidelines on industrial best practices before the election. The relevant service contractor is also required to submit a report to REO after the election.

Yours sincerely,



(Ms Cherie Yeung)

for Secretary for Constitutional and Mainland Affairs

cc: Chief Electoral Officer