ITEM FOR FINANCE COMMITTEE

CAPITAL WORKS RESERVE FUND
HEAD 710 - COMPUTERISATION
Office of the Government Chief Information Officer
New Subhead "Implementation of Pilot e-Procurement Programme"

> Members are invited to approve a new commitment of $49.2 million for implementation of the pilot e-Procurement programme.

PROBLEM

At present, the majority of purchases of goods and non-construction services carried out by bureaux/departments (B/Ds) are of low value (i.e. with purchase value not exceeding $1.3 million). The procurement processes of these high volume, low value purchases are mainly paper-based and conducted manually. Handling large volume of low value purchases manually is not conducive to the operational efficiency of and cost-effective delivery of services by B/Ds.

PROPOSAL

2. The Government Chief Information Officer, with the support of the Secretary for Commerce, Industry and Technology, proposes to create a new commitment of $49.2 million for implementation of a pilot e-Procurement programme.

JUSTIFICATION

The Need for a New Strategy for e-Procurement

3. At present, procurement of low value goods and non-construction services is handled by individual B/Ds. These purchases, which are largely

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performed and managed manually on a paper-based mode, accounted for over 99% of the total number of purchase orders for goods and non-construction services in the Government. Manual handling of high volume of low value procurement is not conducive to the operational efficiency and effectiveness of B/Ds. Under the paper-based system, procurement information is unstructured, time-consuming to collect and could not be shared amongst B/Ds. This may undermine B/Ds' capabilities in contract management, supplier management and in the planning of strategic sourcing.

4.   A consultancy study was conducted in 2005-06 to map out a strategy for taking forward e-Procurement to handle high volume of low value purchases made by B/Ds. The study recommended the adoption of a new procurement approach by deploying an integrated range of e-Procurement tools and services with a view to enhancing efficiency, improving the quality and accessibility of procurement information and encouraging e-commerce in the supplier community.

The e-Procurement Initiatives

5.   We propose to conduct a pilot e-Procurement programme in three departments, namely, the Office of the Government Chief Information Officer (OGCIO), the Immigration Department and the Environmental Protection Department (EPD), to deal with low value purchases of goods and non-construction services not exceeding $1.3 million, the purchase authority of which has been delegated to B/Ds.

6.   The following four e-Procurement initiatives will be implemented incrementally under the pilot programme –

　　　(a) *Procurement Portal* – a Government procurement website will be set up as the gateway for B/Ds to share procurement-related information internally and externally with suppliers.

　　　(b) *Internal Workflow System* – this is a common software application supported by a standard product coding. The application will streamline and automate the entire procurement process of B/Ds from initiating a requisition, confirming availability of funds, placing a purchase order, confirming delivery and acceptance, to providing updated payment information to the Treasury.

　　　(c) *E-Sourcing* – a web-based solution to support B/Ds to prepare and issue the invitation of quotations/proposals and for suppliers to submit their responses online.

　　　(d) *E-Catalogue* – a web-based facility for B/Ds to identify potential suppliers for a required product or service and to prepare the shopping list.

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7. The initiatives will be underpinned by a set of product code standard which will be developed during the pilot implementation. Such standard will help categorise procurement data in an effective and systematic way so as to facilitate the formulation of procurement strategies.

The Use of an Incremental Approach in Implementing the Pilot Programme

8. Apart from the implementation of a suite of e-Procurement initiatives, change management for both users of the pilot departments and suppliers will form an integral part of the pilot programme. Since migration to e-Procurement is a major transformation programme and will generate significant business changes for all the stakeholders, a pilot approach will be adopted to keep the impact of change manageable and contain the risks involved. The pilot approach will also help verify the estimated costs, potential benefits and identify operational issues. These will serve as a useful reference to the Government in mapping out the way forward for extending e-Procurement to other B/Ds.

9. To facilitate the transformation process, a series of stakeholder engagement programme including seminars, workshops and training will be conducted for Government users and suppliers to promote the benefits of and guide stakeholders in adopting the e-Procurement initiatives. We envisage the cost to suppliers will be minimal as suppliers with personal computers (PCs) and broadband connection will be able to communicate with the pilot departments through the e-Procurement portal. Following international best practices, an incremental approach will be taken whereby suppliers who are more receptive to the use of information technology will be encouraged to participate in the pilot programme first. Nonetheless, in line with the principle of fairness and open competition in Government procurement, both the manual and electronic modes of operation could be run in parallel during the pilot implementation.

Post Implementation Review

10. A review will be conducted six months after the full operation of the e-Procurement initiatives to consolidate the experiences and lessons learnt, examine the impact on stakeholders, assess the responses from suppliers and the actual costs and benefits. The findings will form the basis for the Government to consider the way forward for extending the e-Procurement initiative to other B/Ds.

BENEFITS

Tangible and Intangible Benefits to the Government and Suppliers

11.   Overseas experience shows that e-Procurement achieves financial savings arising from cost reduction through streamlining and unifying the procurement processes, as well as price reduction through aggregate buying. Other benefits are also achieved in reducing procurement lead time, enhancing transparency of procurement management information, providing a catalyst for change in joining up different parties within government and promoting e-commerce.

12.   With reference to overseas experience, we envisage e-Procurement will bring benefits to both the Government and suppliers, as set out below.

To *the Government,* implementation of e-Procurement will help –

(a) improve efficiency and effectiveness – international benchmark reveals the potential to reduce the procurement cycle time from two weeks to four days. The Hospital Authority managed to reduce ordering lead time by 14 days in respect of the procurement of common consumables, stationery and other office supplies;

(b) improve quality and accessibility of procurement information;

(c) reduce human errors and enhance traceability;

(d) reduce paper consumption and storage space;

(e) expand supplier base as B/Ds can share and access supplier information from the central database. Such information may not be readily available to B/Ds in a paper-based system;

(f) promote green procurement by sharing green procurement information amongst B/Ds through the procurement portal;

(g) reduce transaction cost – overseas experience indicates a reduction of transaction cost to an average level of around $210 per purchase order after adoption of e-Procurement; and

(h) reduce purchase price – by making procurement information more readily available, the Government can achieve price reduction through consolidating and aggregating purchases across B/Ds in addition to those already subject to Standing Offer Agreement (SOA)[1] and Term Contracts. The experience of overseas governments indicates price reduction of around 2%.

To the *suppliers*, e-Procurement will enable them to reap the following benefits, which will serve as incentives for their participation in the initiative –

(a) communicate with the Government more effectively and efficiently by reducing the turnaround time of correspondences and through enhanced accessibility to government procurement information;

(b) expand their business opportunities with the Government by updating product catalogues on the e-Procurement portal which will be accessible to B/Ds;

(c) reduce the turnaround time for business transactions through leveraging on electronic transmission of requests/submission of quotations, e-order and online confirmation of goods/service delivery and notification of acceptance; and

(d) encourage migration to the electronic means of doing business, thereby enhancing suppliers' capability in e-commerce.

Cost and Benefit Analysis

13. The actual benefits of implementing e-Procurement in the three departments concerned have to be tested out in the pilot programme. Working on the assumption of the international benchmark, transaction cost savings of the pilot departments can be up to $2 million annually when the e-Procurement programme is fully implemented for all product items. These savings are largely fragmented and notional in nature. With the automated workflow under the e-Procurement system, resources can be saved for various user groups (including end users, accounts and supplies officers) in handling paper work. Such resources can be redeployed to help deliver more value-added activities such as –

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[1] SOA is a non-exclusive agreement entered with short-listed suppliers who agree to supply a range of products to Government at a price not exceeding a ceiling price committed by the supplier. B/Ds will obtain quotations from the short-listed suppliers to purchase the required items as necessary.

(a)   building up procurement intelligence through looking for new suppliers and better offers for government procurement; and

(b)   assessing purchase patterns and consolidating purchases of similar items into fewer but larger batches, thereby reducing the number of transactions and the administrative overheads for both the Government and suppliers.

14.   Regarding savings attributable to price reduction through aggregate buying, the relevant B/Ds will be able to conduct in-depth procurement analysis and carry out strategic buying once accessibility to procurement information is improved upon implementation of e-Procurement. Considering that the types and volume of purchases covered in the overseas e-Procurement schemes may be different from those of the three pilot departments, we would aim to achieve the 2% benchmark as our ultimate goal. We will assess the price reduction potential in the post implementation review.

15.   Given that the proposed e-Procurement programme will only be implemented on a pilot basis, the actual costs and magnitude of benefits will need to be verified through the implementation process. We will carry out a detailed cost and benefit analysis during the post implementation review. To facilitate this exercise, measures of key benefit parameters as set out in paragraph 12 will be made before and after the pilot implementation.

FINANCIAL IMPLICATIONS

Non-recurrent Expenditure

16.   We estimate that implementation of the proposed pilot programme will require a total non-recurrent expenditure of $49.2 million from 2007-08 to 2010-11, broken down as follows –

		2007-08 $ million	2008-09 $ million	2009-10 $ million	2010-11 $ million	Total $ million
(a)	Hardware	0.9	4.0	1.8	1.6	8.3
(b)	Software & Development	1.3	5.3	2.2	1.3	10.1
(c)	Implementation Services	2.2	2.6	5.1	2.7	12.6

(d) Contract Staff	5.4	5.6	4.9	-	15.9
(e) Contingency	0.4	0.8	0.8	0.3	2.3
Total	**10.2**	**18.3**	**14.8**	**5.9**	**49.2**

17.   On paragraph 16(a), the estimate of $8.3 million is for the acquisition of hardware and equipment such as servers, communication and other network equipment.

18.   On paragraph 16(b), the estimate of $10.1 million is for the procurement of system and application software, and acquisition of services for system design, customisation and integration.

19.   On paragraph 16(c), the estimate of $12.6 million is for the acquisition of services for programme management, product code classification, help desk, change management, and user and supplier adoption training.

20.   On paragraph 16(d), the estimate of $15.9 million is for the hiring of contract staff for implementation of the pilot e-Procurement programme. It includes –

(a) $6.2 million (144 man-months) for OGCIO to support the central implementation office which will be responsible for conducting the tendering and procurement of services for system implementation, contract administration and co-ordination of the programme; and

(b) $9.7 million (329 man-months) for the three pilot departments to cope with, on top of on-going day-to-day procurement activities, the planning and supporting work relating to the e-Procurement programme, e.g. planning of supplier adoption programme, portal content management, defining user requirements and conducting user tests.

Other Non-recurrent Expenditure

21.		The implementation of the pilot e-Procurement programme will also entail a non-recurrent staff cost of $12.1 million, broken down as follows. The cost will be absorbed by the respective departments.

	2007-08 $ million	2008-09 $ million	2009-10 $ million	2010-11 $ million	Total $ million
(a) OGCIO	3.4	3.7	3.7	0.4	11.2
(b) Efficiency Unit	0.6	-	-	-	0.6
(c) EPD	0.1	0.2	-	-	0.3
Total	**4.1**	**3.9**	**3.7**	**0.4**	**12.1**

22.		The non-recurrent staff cost of $11.2 million (equivalent to 90 man-months) will be absorbed by OGCIO in providing management steer for the pilot programme, $0.6 million (or 8 man-months) by the Efficiency Unit in conducting the business re-engineering study and $0.3 million (or 2.5 man-months) by EPD in providing policy advice from the green procurement angle.

Recurrent Expenditure

23.		As the proposed e-Procurement programme will be implemented on a pilot basis, the costs for operating and managing the new system have been included in the non-recurrent expenditure set out in paragraphs 16 to 22 above. We will consider the most cost-effective operation model and funding arrangements, including the recurrent expenditure, for extending the e-Procurement programme to other B/Ds in the post implementation review.

IMPLEMENTATION PLAN

24.		The pilot e-Procurement programme with the initiatives stated in paragraph 6 above will be implemented according to the following schedule –

	Activity	**Timing**
(a)	Tendering for hardware, software and services	May to November 2007
(b)	Award of contracts and procurement of hardware, software and services	August to December 2007
(c)	Progressive roll-out of e-Procurement initiatives	January 2008 to June 2009
(d)	Post implementation review	December 2009 to April 2010

PUBLIC CONSULTATION

25.   We have consulted the Legislative Council Panel on Information Technology and Broadcasting (ITB Panel) on the proposal on 11 December 2006. Members supported the proposal in principle and agreed to the submission of the funding proposal to the Finance Committee on 26 January 2007.

26.   In supporting the proposal, Panel Members noted that e-invoice was not covered in the scope of the pilot programme. While some Members would like to see early introduction of this function, concern was also expressed at the ITB Panel that e-Procurement initiatives should be implemented incrementally having regard to the change readiness of small and medium sized enterprises. Having considered the various views expressed by Members and the recommendation of the consultancy study, on balance we consider that the proposed staged approach is appropriate and the introduction of the e-invoice function is premature at this stage.

27.   Although the use of e-invoice will shorten the invoice delivery time and help speed up the completion of the procurement process, the anticipated benefit cannot be fully reaped unless individual suppliers have the necessary accounting or finance software to support the issue of e-invoice, and the financial systems in the Government is capable of receiving e-invoice for payment processing. According to a statistics report issued by the Census and Statistics Department in 2006, the number of establishments in Hong Kong using accounting and finance software is low[2]. As a result, the Government Financial Management Information System which is currently under development by the Treasury does not

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[2]   According to the "Report on 2006 Annual Survey on Information Technology Usage and Penetration in the Business Sector", only 28% of establishments using PCs are using financial and accounting software.

support e-invoice at this stage.   For better change management of this major transformation project and to contain project risk, we consider it appropriate to adopt an incremental approach of embarking on the four e-Procurement initiatives set out in paragraph 6 first for the purpose of the pilot programme, before considering the introduction of the e-invoice function in future. That said, we shall keep in view opportunities for developing and testing the e-invoice function separately when circumstances are conducive.
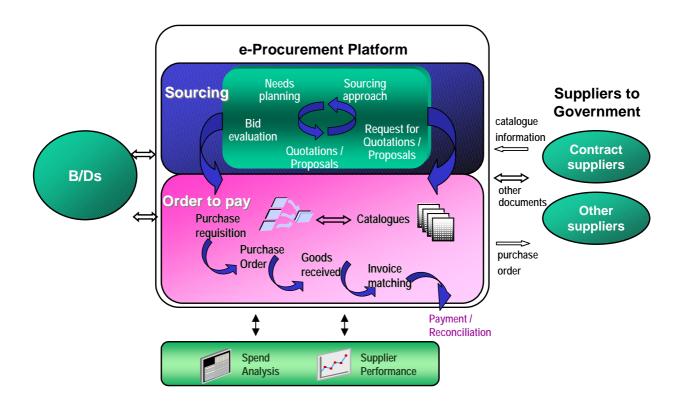
BACKGROUND

28.   E-Procurement is one of the priority initiatives under the new wave of e-government programme which has been included under the 2005 Policy Agenda. To exploit the full potential and reap benefits of e-Procurement in the Government as a whole, we conducted a consultancy study in 2005 to map out a strategy for taking forward e-Procurement at the B/D level by making reference to the best practices of other governments and successful implementers in the private sector. The study was completed in May 2006 and an e-Procurement strategy was recommended for the Government to adopt a new approach for conducting procurement for those low value purchases which are being handled by B/Ds. A schematic presentation of the proposed e-Procurement strategy is set out at the

Encl.   Enclosure.

29.   The migration to e-Procurement will be a major transformation programme involving a large number of users and suppliers.   It will generate significant business changes for all the stakeholders.   To minimise risks inherent in major transformation initiative and to enable better change management to support stakeholders, the study recommended an incremental approach for implementation. Specifically –

> (a)   a pilot programme should be implemented in a few departments before considering service-wide roll-out in the Government;

> (b)   e-invoice will not be covered under the pilot programme as its implementation will require the presence of the necessary back-end accounting or finance computer systems at both the buyers' and suppliers' ends; and

> (c)   suppliers should be engaged on a sector-by-sector basis according to their e-readiness.

Office of the Government Chief Information Officer
Commerce, Industry and Technology Bureau
January 2007

Schematic Presentation
on the Proposed e-Procurement Strategy