

Report No. 50 of the Director of Audit — Chapter 3

CUSTOMER CARE AND BILLING SYSTEM OF THE WATER SUPPLIES DEPARTMENT

Summary

1. In March 2001, the Finance Committee (FC) of the Legislative Council approved funding for the Water Supplies Department (WSD) to implement a Customer Care and Billing System (CCBS) to replace its old Water Billing and Information System (WIS). In February 2003, the Government Logistics Department (GLD), as the Authorised Contractual Authority, awarded a contract (the Contract) to a contractor (the Contractor) for developing and maintaining the CCBS. A Project Steering Committee (PSC) was established in the WSD to provide guidance and direction, and to monitor the project development. The whole CCBS was completed in June 2006. The Audit Commission (Audit) has recently conducted a review of the WSD's implementation of the CCBS.

Phased system implementation

2. *Need to allow sufficient time for work completion before tendering.* According to the Contract, the Contractor should implement the CCBS in three phases (namely Phases I, II and III). Between November 2003 and July 2007, the Contractor proposed, the WSD supported and the GLD approved splitting Phase II into six sub-phases and extending the completion dates of Phases II and III. In the event, Phase II(a) of the CCBS, which provided the essential features and core functions, was rolled out in December 2004. Completion of the whole project was extended from September 2004 to June 2006. This was due to the complex work involved, and the need to carry out more customisation work and additional user acceptance tests. As the CCBS was developed based on an overseas software package, substantial modifications were required. *Audit has recommended that the Director of Water Supplies should: (a) allow sufficient time in a contract for completing the work, taking into account system complexity and modifications required; and (b) closely monitor work progress, with a view to completing the contract on time.*

3. *Need to obtain prior approval for contract variations.* Audit examination of 94 Change Requests involving contract variations revealed that 52 (55%) were submitted to the GLD for approval after the variation work had passed the user acceptance tests or the related systems had been put into use. *Audit has recommended that the Director of Water Supplies should obtain approval from the relevant authority in accordance with the Stores and Procurement Regulations before carrying out variation work.*

Supplemental maintenance fees

4. *Need to promptly inform the GLD of proposed supplemental maintenance contract.* According to the Contract, the Contractor should provide free maintenance services for the CCBS until the system was accepted and the one-year warranty period had expired. As a result of the contract extensions, the revised warranty period would end in June 2007 (instead of the original date in September 2005). In February 2004, the PSC supported in principle the Contractor's proposal for supplemental maintenance fees for maintaining the sub-systems up to the expiry of the revised warranty period. In October 2005, the GLD (the Authorised Contractual Authority) was informed for the first time of the Contractor's intention to claim the supplemental maintenance fees. In 2007, the Government paid a sum of money to the Contractor to settle his claim. *Audit has recommended that the Director of Water Supplies should promptly inform the Authorised Contractual Authority of possible contract variations and the financial implications.*

5. *Room for improvement in administering contract variations.* In the PSC minutes of meetings between February and December 2004, wording such as "the supplementary maintenance contract was also approved" and "the revised payment schedule and supplementary maintenance contract were also confirmed" was used. This could cause misunderstanding to the Contractor who was in attendance at the meetings. *Audit has recommended that the Director of Water Supplies should avoid using wording which may cause misunderstanding of acceptance of contract variations before the Authorised Contractual Authority has given approval.*

Contract retention money

6. *Need to withhold retention money according to General Conditions of Contract (GCC).* The GCC stipulated that 15% of the contract sum should be kept as retention money by the Government. However, the GCC did not explicitly state the time of withholding the retention money. From January 2004 to December 2005, the WSD made payments to the Contractor without withholding any retention money. The WSD only detected this omission in February 2006, 25 months after the first payment was made. In March 2007, the Contractor provided the GLD with a performance bond in lieu of refunding the retention money. *Audit has recommended that the Director of Water Supplies should: (a) take measures to ensure that retention money is withheld from contract payments according to the GCC; (b) specify the time of withholding retention money in a contract; and (c) set up a control system over contract payments.*

System commissioning

7. ***Need to fully convert customer addresses before system commissioning.*** The Hongkong Post (HKP) maintains a database of postal addresses in English and Chinese. In November 2003, in order to adopt the HKP addresses for replacing the WIS customer service addresses and mailing addresses, the WSD decided that the Contractor would develop a computer program to match the WIS English addresses with the HKP ones. If a WIS English address matched with the HKP one, both the English and Chinese addresses would be adapted from the HKP database to the CCBS after conversion into the CCBS format. However, during the address migration (between late December 2004 and January 2005), 810,000 unmatched customer addresses were migrated in the WIS format. These WIS format addresses caused operational problems until they were completely converted into CCBS format in December 2005. *Audit has recommended that the Director of Water Supplies should remind WSD staff of the need to convert data into a format acceptable to the new system before system commissioning.*

8. ***Need to ensure accuracy of Chinese addresses.*** In early February 2005, after sending 300,000 water bills using the Chinese addresses adapted from the HKP database, the WSD found that 6,000 had used incorrect Chinese addresses (due to the adding of one floor to the English addresses). Despite this, the HKP had asked its postmen to deliver the water bills to the correct addresses. However, about 200 were sent to the wrong addresses. Subsequently, the WSD had to revert to the previous practice of issuing water bills using English addresses. *Audit has recommended that the Director of Water Supplies should, before commissioning of a new computer system in future, take effective action to verify the accuracy of data adopted from another organisation before using them.*

9. ***Need to expedite action for billing with Chinese addresses.*** The CCBS would facilitate billing with Chinese addresses. However, up to January 2008, three years after the commissioning of the CCBS, the WSD had not resumed issuing water bills with Chinese addresses. *Audit has recommended that the Director of Water Supplies should expedite action to provide customers with the option of receiving water bills with Chinese addresses.*

System performance

10. ***Need to expedite action on providing customer services through the Internet.*** Under the Contract, the CCBS would enable the delivery of customer services through the Internet. Audit examination revealed that, up to 31 December 2007, of the 15 types of services with a high anticipated frequency of use, 8 types had not been provided through the Internet. Of those provided through the Internet, Audit found that less than 1% of the

customers used two services (namely request for taking up and giving up of consumership). *Audit has recommended that the Director of Water Supplies should: (a) expedite action on providing customer services through the Internet; and (b) after providing the services through the Internet, conduct publicity campaigns and consider providing incentives to encourage customers to use the services.*

11. ***Need to improve processing time for customer services.*** According to the paper submitted to the FC in February 2001, the processing time for four key customer services would be substantially reduced after the implementation of the CCBS. Audit examination revealed that, from April 2006 to December 2007, the processing time for one service still fell short of the WSD performance target. *Audit has recommended that the Director of Water Supplies should: (a) adopt measures to attain the performance target for the service; and (b) revise the WSD performance targets for customer services to reflect the reduction in the processing time subsequent to the commissioning of the CCBS.*

Response from the Administration

12. The Administration has accepted the audit recommendations.

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