

PROVISION AND MANAGEMENT OF COMMUNITY GREEN STATIONS

Executive Summary

1. In early 2013, the Environment Bureau (ENB) announced a plan to develop five pilot Community Green Stations (CGSs) in different parts of the territory to promote environmental/green education and to enhance the collection network of recyclables. The development of CGSs is under the policy purview of ENB and the Environmental Protection Department (EPD). The 2014 Policy Address announced the development of a CGS in each of the 18 districts. According to ENB, the setting up of 18 CGSs would involve an estimated capital expenditure of about \$400 million, and a non-governmental organisation (NGO) would be appointed by way of tender to operate each CGS which would help green living to take root at the community level.

2. According to EPD, each CGS should preferably have a site area of no less than 1,500 square metres and should as far as practicable be conveniently located so as to facilitate visits by local residents. It should also have space for temporary storage of recyclable materials, designated area for loading/unloading of recyclable materials by collection vehicles, general office space, multi-purpose rooms and other ancillary facilities for outdoor activities for the purpose of environmental education. EPD is the project proponent for CGSs and the Architectural Services Department (ArchSD) acts as the works agent for implementation of CGS projects. As of December 2019, regarding the progress for provision of CGSs in the 18 districts: (a) a total funding of \$286.8 million had been approved for implementing 11 CGS projects and a total expenditure of \$195.5 million had been incurred. The construction works for 9 CGSs were completed between 2015 and 2018 and 2 CGSs were in progress; and (b) the remaining 7 CGSs were at planning or site selection stage.

3. According to EPD, private recyclers mainly collect recyclables of higher commercial value. CGSs will enhance environmental education and help collect different types of recyclables, especially those of low economic value (including electrical appliances, computers, glass bottles, rechargeable batteries, and

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compacted fluorescent lamps and fluorescent tubes) in the local community, with a view to promoting green living at the community level.

4. EPD appoints NGOs to operate CGSs by way of open tender. As of December 2019, the operating contracts for the 9 CGSs with construction works completed had been awarded. Of these 9 CGSs, 8 CGSs commenced operation between May 2015 and October 2019 and the remaining CGS would commence operation in the second quarter of 2020. In 2018, the total operating expenditure for CGSs was about \$24 million. EPD monitors the performance of CGS operators. The Audit Commission (Audit) has recently conducted a review to examine the Government's efforts in provision and management of CGSs.

Provision of Community Green Stations

5. *Need to make continued efforts to address challenges faced in developing CGSs.* In 2014, ENB informed the Legislative Council (LegCo) Panel on Environmental Affairs that it estimated that all 18 CGSs would be completed by phases in the following three years (i.e. from 2015 to 2017). However, the estimated timeframe for completing the 18 CGSs was not met. As of February 2020, the construction works of 9 (50%) CGSs were completed and 2 (11%) CGSs in progress, and the remaining 7 (39%) CGSs were at planning or site selection stage. According to EPD: (a) the identification of a suitable site for development of a CGS in each of the 18 districts had met with great practical challenges; and (b) for the districts in which no suitable sites could be secured for development of CGSs, EPD was exploring alternative ways to expedite the delivery of the core services of CGSs. In Audit's view, EPD needs to make continued efforts to address the challenges faced in the development of the remaining CGSs and expedite actions in exploring alternative ways to deliver core CGS services for districts with no CGSs (paras. 2.4, 2.6 and 2.7).

6. *Delay in completing construction works of some CGSs.* As of December 2019, for the 9 CGSs with construction works completed, they were completed about 1.5 to 14 months later than their respective original contract completion dates. According to ArchSD, after consideration of extensions of time granted, there was delay in completion of works for 3 of the 9 CGSs, with delay ranging from 1 month to 5 months (paras. 2.11 and 2.12).

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7. *Construction works carried out before approval of related drawings and not in accordance with the approved drawings.* For two CGSs (i.e. Sham Shui Po and Tuen Mun CGSs), according to EPD's requirements, there should be a storage block with a sorting area for installation and operation of a baling machine. EPD's area requirements for the baling machine had been incorporated into the contract as a contract requirement. According to the contract, the related drawings should also be approved by ArchSD before commencement of works and the works should be carried out according to the approved drawings. However, for the two CGSs, construction of the structural steel frame of the sorting areas in the storage blocks was completed before ArchSD's approval of the related drawings and not in accordance with the approved drawings. In the event, EPD's area requirements for installation of baling machines were not met and baling machines of a smaller size and capacity were installed at both CGSs (paras. 2.14 to 2.17).

8. *Need to draw lessons from various facility problems encountered after some CGSs had commenced operation.* Audit noted that works were carried out for tackling various facility problems after two CGSs had commenced operation: (a) for Sha Tin CGS, works were needed for tackling water leakage problems at the roofs of buildings and flushing problems in the toilets. In the event, it took more than three years to fully resolve all the problems; and (b) for Eastern CGS, works were needed for tackling stagnant water problems on roofs of buildings. In the event, it took about two years to fully resolve the problems. In Audit's view, ArchSD needs to draw lessons from the facility problems at the two CGSs with a view to improving the implementation of CGS projects (paras. 2.18 to 2.22).

Services provided by Community Green Stations

9. EPD appoints NGOs to operate CGSs by way of open tender, and the operating contracts are generally for a period of three years. According to the operating contracts, CGS operators should provide services including educational services, recyclables collection services and management of the facility. CGS operators provide three types of educational events, namely regular educational events, featured educational events and special community events. In addition, CGS operators generally collect two categories of recyclables, namely permitted recyclables (e.g. glass bottles, household appliances (including electrical and electronic equipment), computers and accessories, rechargeable batteries, and compacted fluorescent lamps and fluorescent tubes) and secondary recyclables (e.g. old clothing and textiles, books and toys) (paras. 3.2, 3.5 and 3.19).

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10. ***Minimum quantity requirements for educational events not met by some CGSs.*** According to the operating contracts, there is a minimum quantity requirement on the number of different types of educational events provided by a CGS operator in each contract year. Audit noted that, for the first contract year under the current operating contracts of two CGSs (i.e. Sha Tin and Tuen Mun CGSs), the number of outreach regular educational events and special community events held fell short of the minimum quantity requirements by 40% to 67%. According to EPD, the operators of both CGSs met unexpected difficulties in fulfilling the new requirements for these two events (which were introduced in November 2017), and it was reviewing the contract requirements for regular educational events. In Audit's view, EPD needs to early complete the review of the minimum quantity requirements for educational events, and share among CGS operators their experience in providing educational services (e.g. difficulties encountered) (paras. 3.6 to 3.8).

11. ***Need to disseminate the methodology in counting the number of regular educational events held by CGSs.*** Under the operating contracts, only those educational events fulfilling the contract requirements will be qualified for payment and counted in meeting the minimum quantity requirement. Audit noted that EPD had agreed with an operator (which operated Sha Tin and Kwun Tong CGSs) for the methodology for counting the number of regular educational events qualified for payment (through an e-mail from EPD to the operator). As the agreed methodology may also be applicable to other CGSs, in Audit's view, EPD needs to disseminate the methodology in counting the number of educational events held by CGSs to its staff and CGS operators, with a view to standardising the practice and facilitating operators' organisation of such events (paras. 3.9, 3.11 and 3.12).

12. ***Minimum tonnage requirements for recyclables collection not met by some CGSs.*** According to the operating contracts, CGS operators are required to provide recyclables collection services no less than the minimum tonnage requirements of recyclables. Audit noted that for the first contract year under the first operating contract of three CGSs (i.e. Sha Tin, Kwai Tsing and Sham Shui Po CGSs), the quantities of recyclables collected fell short of the minimum tonnage requirements by 6% to 39%. According to EPD, the three CGS operators did not meet the minimum tonnage requirements during their initial operation due to specific circumstances, and they substantially exceeded the minimum tonnage

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requirements in subsequent contract periods. In Audit's view, EPD needs to keep under review the minimum tonnage requirements for collection of recyclables (paras. 3.23 and 3.25).

13. ***Scope for improving service network of CGSs.*** CGS operators collect recyclables through various channels (e.g. in-station collection at CGS and housing collection points). For the service network of the seven CGSs which commenced operation between 2015 and 2018, Audit noted that the annual summaries of monthly reports submitted by the seven CGS operators had included the coverage rate of housing collection points (ranging from 65% to 90% of the population in residential area in their districts), but had not included the calculation of the coverage rate. Neither had EPD documented its verification of the calculation. In Audit's view, EPD needs to require CGS operators to include the calculation of the coverage rate of housing collection points in the annual summaries of monthly reports for EPD's verification (paras. 3.21, 3.27 and 3.28).

14. ***Storage specification for recyclables not met by CGSs.*** According to the operating contracts, regarding storage of recyclables at CGSs, CGS operators should not store recyclables at the stations for longer than 7 days without prior consent from EPD. Audit noted that for the seven CGSs which commenced operation between 2015 and 2018, they had not met the 7-day maximum storage specification for the recyclables collected from October 2018 to June 2019. According to EPD: (a) the 7-day maximum storage specification was introduced at the very beginning of the CGS project initiative to address local community's concern that "dirty waste" might be stored at CGSs; (b) with the promotion of "clean recycling" at CGSs in these years, recyclables received and stored at CGSs were generally in good hygiene condition; and (c) EPD had given consent during regular site inspections for CGS operators to store recyclables at their storage area for longer than 7 days. In Audit's view, EPD needs to review the 7-day maximum storage specification for storage of recyclables, having regard to the latest operating conditions of CGSs and hygiene conditions of recyclables stored therein (paras. 3.29 to 3.32).

15. ***Scope for improving the counting methodology for visitors to CGSs.*** CGS operators report the number of visitors to CGSs in the monthly reports submitted to EPD. According to EPD, some CGS operators counted the number of visitors manually while other CGS operators counted the number by installing electronic counters at the boundary of CGSs. Audit considers that EPD needs to

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review the effectiveness of CGS operators' methodologies for counting the number of visitors with a view to enhancing the counting methodologies (para. 3.36).

16. ***Number of visitors to some CGSs less than expected.*** In March 2016, EPD informed the Finance Committee of LegCo that the expected number of daily visitors received by each CGS could achieve 100 on average. Audit noted that of the five CGSs which commenced operation between 2015 and 2017: (a) the number of visitors received by 4 (80%) CGSs fell short of the expected number in all years with a full-year operation; and (b) the numbers of visitors to 3 CGSs decreased by 6%, 17% and 26% respectively from 2017 to 2018. According to EPD, new outreach activities had been introduced since November 2017 and it considered that the level of services provided by individual CGSs should be measured by both the number of visitors to CGSs and the number of persons served by CGSs' outreach activities. However, Audit noted that EPD had not set the expected number of persons served by the outreach activities (paras. 3.37 to 3.39).

Other management issues

17. ***Need to document the analysis of inspection results.*** To monitor the performance and operation of CGSs, EPD staff periodically conduct routine inspections of recyclables collection services, educational services and facilities of CGS. According to EPD guidelines, the inspectors should record the inspection results on the specified standard inspection forms. Audit examined the routine inspection records from January to June 2019 for the six CGSs (which commenced operation between 2015 and September 2018) and noted that, of the 298 inspections recorded on inspection forms, a total of 235 observations were found in 146 inspections and some observations were frequently found during routine inspections. According to EPD, the CGS team had shared latest inspection observations at regular team meetings and followed up on observations of a recurrent nature. However, Audit noted that EPD had not documented the analysis of the observations found (paras. 4.2 to 4.4 and 4.8).

18. ***Scope for enhancing the reporting and vetting of recyclables collected and dispatched.*** CGS operators are required to report the approximate weights of permitted and secondary recyclables collected and dispatched in the monthly reports. Audit examined the monthly reports of the seven CGSs (which commenced

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operation between 2015 and 2018) since contract commencement dates and up to June 2019 for the cumulative weights of recyclables collected and dispatched and noted that for some types of permitted and secondary recyclables, there were significant differences between the cumulative weights of recyclables collected and dispatched. According to EPD, the reasons for the significant differences included: (a) the dispatched quantities of permitted recyclables also included those unused secondary recyclables and materials collected which could not be re-distributed or donated within a reasonable time period. The operating contracts allowed EPD to designate other recyclables as permitted recyclables and EPD had given consent from time to time for CGS operators to turn some of the secondary recyclables collected into permitted recyclables; (b) free distribution of significant quantities of secondary recyclables collected through flea markets set up by some CGS operators were not included in the dispatched quantities in the monthly reports; and (c) there was a surge of the quantities of certain types of permitted and secondary recyclables stored at CGSs as at June 2019. Audit considers that there is scope for enhancing the reporting by CGS operators and vetting by EPD with a view to providing a better way for monitoring the flow of recyclables and whether the recyclables are properly handled (paras. 4.13 to 4.16).

19. ***Delay in submission of reports and audited financial statements.*** According to the operating contracts, CGS operators are required to submit to EPD monthly reports, annual summaries of monthly reports and annual audited financial statements. Audit noted that for some CGSs, there was delay in submission of these reports and audited financial statements. According to EPD, while there was an operational need to have early submission of regular reports, some of the supporting information would not be available within the report submission timeline. In view of the practical circumstances, EPD would review the existing arrangements to strike a balance. In Audit's view, EPD needs to expedite actions in reviewing the existing reporting requirements for CGS operators and remind CGS operators to comply with the contract requirements for timely submission of audited financial statements (paras. 4.17 to 4.19).

20. ***Need to share experience for operation of CGSs.*** As of December 2019, seven CGSs had already been in operation for over one to four years. Audit noted that EPD had not promulgated any good practice guide to CGS operators. In Audit's view, EPD needs to consider promulgating good practices identified over the years for sharing among CGS operators with a view to improving the services of CGSs (para. 4.24).

Audit recommendations

21. **Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has *recommended* that the Director of Environmental Protection should:**

Provision of CGSs

- (a) **make continued efforts to address the challenges faced in the development of the remaining CGSs (including identification of suitable sites) and expedite actions in exploring alternative ways to deliver core CGS services for districts with no CGSs (para. 2.7);**

Services provided by CGSs

- (b) **early complete the review of the minimum quantity requirements for educational events, having regard to CGS operation and the need of local residents for such services (para. 3.15(a));**
- (c) **share among CGS operators their experience in providing educational services (e.g. difficulties encountered) with a view to facilitating them to provide such services (para. 3.15(b));**
- (d) **disseminate the methodology in counting the number of educational events held by CGSs to EPD staff and CGS operators, with a view to standardising the practice and facilitating CGS operators' organisation of such events (para. 3.15(c));**
- (e) **keep under review the minimum tonnage requirements for collection of recyclables, having regard to the operation of and difficulties encountered by CGS operators (para. 3.33(a));**

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- (f) require CGS operators to include the calculation of the coverage rate of housing collection points in the annual summaries of monthly reports for EPD's verification (para. 3.33(c));
- (g) review the 7-day maximum storage specification for storage of recyclables, having regard to the latest operating conditions of CGSs and hygiene conditions of recyclables stored therein (para. 3.33(e));
- (h) review the effectiveness of CGS operators' methodologies for counting the number of visitors with a view to enhancing the counting methodologies (para. 3.44(a));
- (i) review the expected number of persons served by both on-site and outreach activities of CGSs with a view to fully reflecting the service level of CGSs and monitor the achievement of the expected number as adopted after the review (para. 3.44(b));

Other management issues

- (j) document the analysis of the observations found during inspections with a view to identifying those commonly found for assessing the need for helping CGS operators enhance their operation (para. 4.9(b));
- (k) enhance CGS operators' reporting of recyclables collected and dispatched (para. 4.25(a));
- (l) enhance the vetting by EPD staff of the quantities of permitted and secondary recyclables reported by CGS operators (para. 4.25(b));
- (m) expedite actions in reviewing the existing reporting requirements for CGS operators, including the submission time of regular reports (para. 4.25(c));
- (n) remind CGS operators to comply with the contract requirements for timely submission of audited financial statements (para. 4.25(d)); and

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- (o) consider promulgating good practices identified over the years for sharing among CGS operators with a view to improving the services of CGSs (para. 4.25(h)).
22. Regarding provision of CGSs, Audit has also *recommended* that the Director of Architectural Services should:
- (a) monitor the works progress and endeavour to complete the works as soon as practicable in implementing the construction works of CGS projects (para. 2.22(a));
 - (b) strengthen actions to ensure that contractors comply with the contract requirements of carrying out construction works after approval of the related drawings and in accordance with the approved drawings (para. 2.22(b)); and
 - (c) draw lessons from the problems of water leakage and toilet flushing at Sha Tin CGS and stagnant water at Eastern CGS with a view to improving the implementation of CGS projects (para 2.22(c)).

Response from the Government

23. The Director of Environmental Protection and the Director of Architectural Services generally agree with the audit recommendations.