



中華人民共和國香港特別行政區政府總部教育局  
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Government Secretariat, The Government of the Hong Kong Special Administrative Region  
The People's Republic of China

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24 December 2008

Hon Cyd HO Sau-lan  
Room 602, Citibank Tower  
3 Garden Road  
Central  
Hong Kong

Dear Hon HO,

**LegCo Panel on Education Meeting on 8 December 2008**  
**Supplementary Information on**  
**The Development of the Hong Kong Diploma of Secondary Education Examination System**

At the meeting of the Legislative Council Panel on Education held on 8 December 2008, the funding proposal of the development of a computer system to support the new Hong Kong Diploma of Secondary Education Examination was discussed.

In response to the request for additional information on the detailed justifications on the provision of FM radio repeaters, whether the previous grants to the Hong Kong Examinations and Assessment Authority have been effectively used, and the detailed cost breakdown of the proposed project, I would like to provide the supplementary information at the **Annex** for the information of the Panel.

Yours sincerely,

(Dr Catherine K K CHAN)  
for Secretary for Education

c.c. Legislative Council Secretariat (Attn.: Miss Odelia LEUNG)

**LegCo Panel on Education Meeting on 8 December 2008**  
**Supplementary Information on**  
**Development of the Hong Kong Diploma of Secondary Education Examination System**

**Justifications on provision of FM radio repeaters**

The listening examinations of Chinese Language and English Language subjects of the Hong Kong Certificate of Education Examination (HKCEE) and Hong Kong Advanced Level Examination (HKALE) are broadcasted on Radio Television Hong Kong Radio 2. Candidates are required to bring their own FM radios with earphones to the examination centres. In identifying suitable examination centres for listening examinations, HKEAA needs to ensure that there is an adequate number and territorial spread of centres to accommodate reasonable accessibility for the candidates, that the radio signal reception of the centres is of acceptable quality, and that disturbance to school lessons/activities are kept to the minimum.

2. At present, the number of school halls of participating schools in HKCEE with acceptable quality of radio signal for conducting listening examination is not sufficient to cater for the candidature size. Taking the 2008 HKCEE English Language subject as an example, the number of school halls required for the 105,500 candidates was 522, while there were only 349 school halls with acceptable quality of radio reception for conducting listening examination. Taking also into account that not all the 349 schools could release their halls for the examination on the day in question due to various reasons, 114 schools, apart from releasing their school halls, had to be closed to provide their other rooms for the examination, resulting in disruption to the lessons/activities of these schools which is undesirable.

3. It is estimated that there will be about 80,000 candidates in the 2012 Hong Kong Diploma of Secondary Education (HKDSE) Examination, requiring about 400 school halls. Projecting the candidature size beyond 2012 and using 2015 as an example, the number of halls required will be increased to 447. Even assuming all 349 school halls with acceptable quality of radio reception can be made available, there still needs 51 and 98 halls in 2012 and 2015 respectively. To minimize the number of schools to be closed and the disturbance caused to the school lessons/activities, we see a need to expand the pool of examination centres by improving the radio signal reception quality of 67 school halls which are rated as “poor” or “very poor” in radio signal reception quality and not used as listening examination centres. We therefore propose to install FM radio signal repeaters<sup>1</sup> in these 67 schools. The Hong Kong

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<sup>1</sup> FM radio signal repeater is a combination of a radio receiver, amplifier and transmitter that receives a weak or low-level signal, amplifies and then transmits it at a higher level or higher power. The receiver will be installed at the roof top of the examination centres and the radio transmitter be installed at the examination hall so that the radio signal received will be amplified and relayed to the examination hall. The radio transmitter will also be configured to eliminate blind spots. Clear reception of radio signal will be ensured, thus facilitating a fairer listening examination.

Examinations and Assessment Authority (HKEAA) will continue to work closely with the school sectors to gauge their support in providing school halls, other multi-purpose halls if suitable, and classrooms if necessary, for the examination. Depending on the time required for the purchase of the equipment and installation, HKEAA should be able to advance the installation for use in HKCEE without the need to wait for the launch of the HKDSE Examination.

4. We have considered the alternative of using other venues (such as community centres, and lecture halls or gymnasiums in tertiary institutions) for conducting listening examinations but the option is considered not feasible. It will be difficult, if not impossible, to hire sufficient halls on a single day. The recurrent cost of hiring venues up to 67 halls equivalent, which is estimated at \$4.8 million per year, is not cost effective as compared with the proposed one-off investment. Aside from the above, the deployment of school teachers to serve as centre supervisors / invigilators at outside venues may not be desirable for the school administration.

#### **Whether the previous two grants made to HKEAA have been used effectively**

5. In recent years, with the approval of the Finance Committee, HKEAA has been provided with \$136.7 million to support its assessment development and research activities (the AD&R Grant) and \$198.87 million to support the modernization and development of its examination systems (the IT Modernisation Grant). These two grants are intended for distinct purposes and do not overlap with the current funding proposal to develop the HKDSE Examination system.

6. The AD&R Grant approved vide FCR (2003-04)65 on 27 February 2004 aims at enhancing HKEAA's assessment development and research capacity to support education initiatives and further the development of public assessments so that there is enough time to prepare for implementing the new academic structure though the year of implementation was not yet decided at that time. The original implementation schedule was up to 2009. The Administration has been providing the Legislative Council with annual reports on the progress of the use of this grant. As reported vide FCRI(2008-09)6 of July 2008, the use of the grant will be extended beyond the original five-year period. Latest estimate from HKEAA is that the grant will be used up to the 2011/12 school year to cater for the development of the New Senior Secondary curriculum and assessment, as well as the new HKDSE to be implemented in 2012. The main revision of schedule lies in the areas of the preparation of subject materials for standards-referenced reporting and the implementation of school based assessment (SBA). HKEAA has already developed and implemented the standards-referenced reporting and SBA methodologies in the 2007 & 2008 HKCEE Chinese and English language subjects. These methodologies will be adopted in the HKDSE Examination.

7. The IT Modernisation Grant approved vide FCR(2005-06)33 on 2 December 2005 is to support HKEAA's modernization of its outdated IT infrastructure and highly manual examination processes. Out of the \$198.87 million, \$136.2 million was for introducing centralized onscreen marking and enhancing security and

supervision of public examination operations. The remaining \$62.67 million was for modernising the IT infrastructure and systems. For instance, the IT infrastructure that HKEAA developed using the Grant includes two data centers with mutual back up, and networking with failover capability. This infrastructure set up has paved way for accommodating the HKDSE Examination system. All the above will continue to be used upon the introduction of the HKDSE Examination, and only minimal part of the Grant has been spent on improving the HKCEE and HKALE so that they can sustain continuous operation until the HKCEE/HKALE come to an end. That is to say, the proposed project will not lead to any wastage of public money previously invested.

### Detailed breakdown of costs of project

8. A detailed breakdown of the project cost is set out in the table below:

	<b>Project Items</b>	<b>Total estimated expenditure \$'000</b>
<b>(I)</b>	<b>Development of the HKDSE Examination system</b>	
<b>(A)</b>	<b>System design and implementation services</b>	
<b>(1)</b>	<b>Examination operations</b>	
(a)	Candidate registration	21,222
(b)	School-based assessment processing	7,439
(c)	Examination session and centre allocation	3,566
(d)	Examination personnel management	6,616
(e)	Script tracking and reporting	1,960
(f)	Applied Learning assessment processing	3,719
(g)	Marks processing and Grading	8,578
(h)	Certificate processing and printing	795
(i)	Statistical modeling, analysis and reporting	1,546
	<i>Subtotal for (A)(1):</i>	<b>55,441</b>
<b>(2)</b>	<b>Examination services</b>	
(a)	Complaint and irregularities management	3,492
(b)	Appeal case management	3,788
	<i>Subtotal for (A)(2):</i>	<b>7,280</b>
<b>(3)</b>	<b>Training</b>	1,754
	<i>Subtotal for (A)(3):</i>	<b>1,754</b>
	<i>Subtotal for (A):</i>	<b>64,475</b>
<b>(B)</b>	<b>Hardware</b>	<b>20,798</b>

	<b>Project Items</b>	<b>Total estimated expenditure \$'000</b>
(C)	<b>Software</b>	<b>25,096</b>
	<i>Subtotal for (I):</i>	<b>110,369</b>
(II)	<b>Hardware and software upgrade for existing systems</b>	
(A)	<b>Onscreen Marking and Examination Personnel Management systems</b>	<b>29,398</b>
(B)	<b>Oral examination recording system (Note 1)</b>	<b>1,487</b>
	<i>Subtotal for (II):</i>	<b>30,885</b>
(III)	<b>Installation of FM radio signal repeaters at examination centres (Note 2)</b>	<b>11,055</b>
	<i>Subtotal for (III):</i>	<b>11,055</b>
	<b>Grand total:</b>	<b>152,309</b>

Notes:

1. Provision for 186 sets of oral recording equipment and installation.
2. Provision for 67 sets of FM radio signal repeaters and installation for examination centre halls with "poor" or "very poor" radio signal reception.

Education Bureau  
December 2008