

DIGITAL 21 STRATEGY ADVISORY COMMITTEE

Data Centre Development in Hong Kong

Purpose

This paper sets out the Government's policy considerations for the development of data centres and highlights the economic benefits attributable to the data centre sector.

Data Centre development

2. Data centres constitute an essential part of the infrastructure in a knowledge-based economy. They support the sustainable growth of our traditional pillar industries like financial services, trading and logistics. They provide the catalyst for the development of new content and applications; they are fundamental therefore to the growth of the information and communications technology (ICT) industry.

3. Hong Kong is a prime location for data centres, benefiting from its proximity to the Mainland, business-friendly environment, sound protection of data privacy, reliable power supply, comprehensive telecommunications infrastructure and low risk of natural disasters. The Government fully supports the development of data centres in Hong Kong as the backbone to our economic growth. This policy is integral to the Digital 21 Strategy.

4. The National Twelfth Five-Year Plan has affirmed the Central People's Government's continuous support for Hong Kong to strengthen development in finance, logistics, information services, and other high-value-added service industries. Data centres play a critical role in buttressing all these industries. Moreover, other competing economies in the region, notably Singapore and Malaysia, are offering various forms of incentives to attract data centre operators. Hong Kong must move expeditiously in the race to further the development of data centres, especially those in support of high-frequency stock trading, e-commerce, and cloud computing services.

Present Position

5. According to a study on data centre which OGCIO commissioned in May 2010 –

- (a) the data centre sector contributed an economic value added of HK\$3.4 billion in 2009, which is about 0.21% of our GDP of HK\$1,622 billion;
- (b) total job opportunities attributed to the data centre sector was estimated to be around 4,800; and
- (c) the value added per data centre employee in 2009 was about HK\$727,300, which compared favourably to the overall average of HK\$466,200 per employee across all sectors.

6. While the quantifiable GDP contribution of data centres is not particularly high, there are unquantifiable benefits attributable to the data centre sector. Data centres are an essential infrastructure to support other economic sectors, including pillars like financial services and logistics. The banking, financial and insurances services, logistics and transportation accounted for 52% of the total demand for data centre space, whereas they contributed 42% of the GDP of Hong Kong in 2009. To sustain Hong Kong's development in these areas and to maintain Hong Kong's competitiveness in the region, we need to attract more high-tier data centres¹ to support, in particular, the growth of high-frequency stock trading, e-commerce and cloud computing services, serving both international and Mainland users in addition to meeting local demand.

7. As at 2009, data centres in Hong Kong occupied about 2.3 million square feet of Raised Floor Space (RFS)². This translates into 11,527 square feet of RFS per billion US\$ of GDP. For comparison purpose, the figures for Singapore and Mainland are 17,175 and 6,101 square feet per billion US\$ of GDP respectively.

¹ High-tier data centres are those data centres of Tier 3+ and Tier 4, which are meeting very stringent requirements such as serviceability, availability and security.

² Raised Floor Space is the built-up floor space available in data centres to accommodate equipment for provision of data centre services.

8. There are already established policy support measures to encourage the conversion of existing industrial buildings to other uses. These can facilitate the development of **mid-tier** data centres³. For **low-tier** data centres⁴, the requirements are less stringent and the demand can be met in the open market. In his 2011-12 Budget Speech, the Financial Secretary announced that the Government is exploring appropriate measures to facilitate the development of more **high-tier** data centres in Hong Kong.

9. In terms of division of work, the Office of the Government Chief Information Officer (OGCIO) has been promoting Hong Kong as a prime location for data centres in the Asia Pacific region. InvestHK has been providing customised services to interested data centre investors from Mainland and overseas. In the past year, the Hong Kong Science and Technology Parks Corporation (HKSTPC) has granted about eight hectares of land in the Tseung Kwan O Industrial Estate for the setting up of high-tier data centres.

Preferred Position

10. The study revealed that there is potential for strong growth in the demand for data centres. An additional 1.8 million square feet of Raised Floor Space (RFS) will be required for all tiers of data centres in Hong Kong by 2015, of which 0.5 million square feet will be for high-tier data centres. The additional land required for high-tier data centres is about 10 hectares. It is reasonably expected that total RFS demand will continue to grow beyond 2015.

11. The current supply of land is insufficient to meet the demand for high-tier data centres, which require sizeable sites of about 2-3 hectares each, adequate power supply (about 30-40 times of the power usage of a typical high-density residential building), and buffer from hazardous uses. Besides, it also takes time to search for and consolidate information related to available land, industrial buildings, environment, relevant permits required, etc. in order to find suitable sites for data centre development.

³ Mid-tier data centres are those data centres of Tier 3, which are meeting stringent requirements but lower than those of high-tier data centres.

⁴ Low-tier data centres are those data centres of Tier 1 and Tier 2, which are meeting even less stringent requirements than those of mid-tier data centres.

Promotion Strategy

12. Having regard to our comparative strengths and weaknesses, we see the need for Hong Kong to put up a **more concerted public-private sector drive** to promote data centre development. We should aim to **realize as quickly as possible** the potential near term demands for RFS **up to 2015**.

13. Specifically, we propose the following –

(a) Stepping up promotion

InvestHK will continue to promote Hong Kong as a prime location for data centres in the Asia Pacific region, and to provide customised services to interested data centre investors from Mainland and overseas. InvestHK can consult the Task Force on Industry Facilitation on priority fields or potential clients. If need be, OGCIO and InvestHK can engage the trade and consider organizing roadshows or dedicated delegations to attract potential clients to Hong Kong.

(b) Setting up an information portal and a one-stop helpdesk

OGCIO will set up a portal to articulate Government's policies on data centre development more clearly and disseminate information relevant to potential developers and investors of data centres. This may include information on available sites, industrial buildings that may be converted into data centres, how data centres can benefit from the industrial building optimisation scheme, power supply, telecommunication coverage, whether there is hazardous use in the vicinity, etc. The information portal will help expedite the land search and application processes. The portal will be launched around mid 2011.

OGCIO will provide helpdesk service to interested investors to supplement the services being offered by InvestHK, such as coordinating with various government departments and assisting in searching for information relevant to establishment of data centres. The helpdesk will commence operation in the second half of 2011.

(c) **Considering the feasibility of setting aside land**

We are identifying sites for development of high-tier data centres and appropriate land disposal arrangements. We expect to develop more concrete proposals in the second half of 2011.

(d) **Optimising the use of industrial buildings**

We will promote the following two incentive measures that facilitate the establishment of mid tier data centres —

- (i) owners who opt for the wholesale conversion of a building instead of redevelopment are **exempted** from paying the waiver fee for change of land use, provided that the requirement on age of property is met and planning permission is obtained. This measure encourages the wholesale conversion of existing industrial buildings for data centre use; and
- (ii) owners are only required to pay additional premiums according to the actual development density after redevelopment instead of the maximum permitted development density based on a “**pay for what you build**” approach. This measure facilitates the development of data centres, which are normally of lower development density.

14. Given the significance of the initiative, the Task Force on Industry Facilitation will keep track of developments and report to this Committee on a regular basis.

Advice Sought

15. Members are invited to advise on the proposed facilitation strategy.

**Office of the Government Chief Information Officer
Commerce and Economic Development Bureau
March 2011**