

ENERGY ADVISORY COMMITTEE

Electricity Supply in Hong Kong: Establishment Survey

Introduction

This paper informs members of the findings of an establishment survey on electricity supply in Hong Kong commissioned by the Economic Development and Labour Bureau (EDLB), with the advice of the Census and Statistics Department (C&SD).

Background

2. At the suggestion of EDLB, electricity supply in Hong Kong was included as one of the three topics in the routine Thematic Household Survey (THS) conducted by C&SD during the first half of 2003. The objective was to gain a general appreciation of the public's understanding and perception of the existing arrangements for electricity supply in Hong Kong and their expectations of future arrangements. Members were informed of the findings of the THS in September 2003, and suggested that opinions should also be collected from non-domestic (commercial and industrial) consumers.

The Survey

3. The survey of local commercial, industrial and public establishments' opinion on electricity supply was conducted during the first half of 2004.

(I) Methodology

4. To cover a wide cross section of organisations, the Central Register of Establishments (CRE) maintained by C&SD, including about 300,000 establishments, was used as the sampling frame for the survey. The survey frame was segregated into sectors pursuant to the Hong Kong Standard Industrial Classification, and each sector was further stratified, by number of employees, into "small", "medium" and "large" establishments¹.

¹

<i>Sectors</i>	<i>No. of direct employees</i>		
	<i>Small</i>	<i>Medium</i>	<i>Large</i>
Manufacturing	< 10	10 – 99	>= 100
Others	< 10	10 – 49	>= 50

5. For a survey of this nature, C&SD's view is that a sample size of about 2,000 establishments should produce findings of acceptable precision level. Questionnaires were dispatched by mail in February 2004 to some 3,300 establishments randomly selected from the CRE, and follow-up calls and/or visits were made as necessary in March/April 2004. With the completion of fieldwork in April 2004, opinions from 2,001 establishments, evenly distributed amongst the different sectors and strata, were successfully collected as shown in the Annex .

(II) Major Findings of the Survey

6. The major findings are summarised as follows –

A. Electricity bills

- The majority of the respondents considered electricity bills already provided adequate information on electricity charges (81.4%) and electricity consumption (77.4%), while less than 2% considered it inadequate.
- Apart from monthly electricity charges, “electricity consumption in comparison with past consumption” and “units of electricity consumed” in electricity bills were also the main items of interest.

B. Electricity consumption

- On energy saving and conservation, 90.2% of the respondents indicated that they would “switch off unnecessary electrical equipment”, and more than half “consider energy efficiency factors when purchasing electrical equipment” (63.1%) and “adjust air-conditioning at suitable temperature to save energy” (56.5%). However, only 9.6% of the establishments had issued policy manuals/guidelines to staff on energy conservation.
- The majority (90.9%) of the respondents claimed that they would not use more electricity if the electricity tariffs were reduced, while 51.5% of the establishments claimed that they would not use less electricity if the electricity tariffs were increased.

C. Relative importance of various aspects of electricity supply

- 57.8% of the respondents considered “reliable and stable electricity supply” the most important, followed by “reasonable electricity

charges” (15.6%), “choice of electricity suppliers” (13.5%), “good customer services” (4.9%), “choice of electricity produced by renewable energy sources” (4.2%) and “simple tariff calculation method” (4.0%).

- By size of establishment, a higher proportion (76.1%) of the large establishments considered “reliable and stable electricity supply” the most important, compared to the small (56.4%) and medium (65.9%) establishments.

D. Government’s role in monitoring the power companies

- More than 75% of the respondents claimed that they were aware of the work by the Government in monitoring the operation of the power companies, with regard to “electricity supply safety” (46.5%), “permitted rate of return” (45.4%), “electricity tariff level” (43.1%) and “reliability of electricity supply” (41.8%). Nevertheless, 23.6% of the respondents indicated that they “didn’t know” in which aspects the Government monitored the two power companies.
- Of those who were aware of the Government’s monitoring work, 46.1% considered the Government’s monitoring adequate, and 53.9 % considered it not adequate. Most of those that considered the monitoring work not adequate suggested that the Government should increase monitoring over tariff levels and operating costs of the power companies.
- 95.7% of the respondents opined that the permitted rate of return of the power companies should be adjusted in accordance with the changing local economic situation.

E. Renewable energy (RE) for power generation

- 89.1% of the respondents supported introduction of RE for power generation, while 1.2% held the opposite view and the remaining 9.7% had no preference.
- 88.9% of the respondents claimed that they would choose to use electricity produced from RE sources, while 6.9 % would not and the remaining 4.2% would depend on situations or had no preference.
- Of those who would choose to use electricity produced from RE sources, 35% said that they would not accept any tariff increase, 22.1% considered that the tariff increase should be less than 5%, while 34.2%

claimed that they would accept an increase between 6% to 10%.

- Of those who would choose to use electricity produced from RE sources, 42.1% opined that additional charges for introducing RE, if any, should be shared by all electricity consumers, while 36.7% opined additional charges be borne by those who chose to use electricity produced from RE sources.

F. Electricity expenditure

- A very wide spectrum of establishments was covered by the survey, ranging from commercial, industrial business entities to public organisations in various sectors, expenditure on electricity varied significantly due to their very different lines of business, different sizes and different modes of operation.
- More than half (58.8%) of the respondents claimed that electricity bills² constituted less than 3% of their operating costs, 18.4% indicated that electricity bills represented 4% to 9% of their operating costs, only 4.6% indicated electricity charges to be over 15% of their operating costs³.
- More than half (57%) of the respondents said that their average expenditure on electricity was less than \$20,000 per annum, 29.9% claimed that it was between \$20,000 to \$100,000 annually, while 5.5% reported an average annual expenditure of \$100,000 or above⁴.

Observations

7. The findings of this establishment survey were generally similar to those obtained from the 2003 THS. As in the case of domestic consumers,

- (i) “reliable and stable electricity supply” was considered to be the most important factor for the majority of the establishments. This reinforces the views that maintaining reliability of electricity supply should be the prime objective of the post-2008 electricity market review;

² Normally referring to electricity bills paid directly by the establishments but not including electricity charges on communal facilities covered by building management fees.

³ 13.6% of the establishments surveyed had not provided such information in their returns.

⁴ 7.6% of the establishments surveyed had not provided such information in their returns.

- (ii) the majority of the establishments were aware of the Government's monitoring work over the two power companies, and their opinions were divided with regard to the adequacy of the Government's current monitoring over the two power companies;
- (iii) most of the establishments opined that the permitted rate of return of the power companies should be adjusted in accordance with the changing local economic situation;
- (iv) electricity consumption would not be affected by tariff variations, as the majority of the establishments indicated that they would not increase electricity consumption in response to tariff reduction or consume less when tariff increases; and
- (v) the majority of the establishments indicated support for the introduction of RE for power generation, while opinions were divided on the additional charges and whether they should be borne by all consumers or only by those who chose to use electricity produced from RE sources.

8. As expected, non-domestic consumers' expenditure on electricity is more in dollar terms. Nevertheless, in terms of operating costs, the electricity bill constitutes less than 10% for the bulk (77%) of these business entities. And while expenditure on electricity is different, these non-domestic consumers' expectations of supply are largely the same – supply reliability being the top priority.

9. Feedbacks from this survey and the earlier THS provide useful reference for the electricity market review currently in progress. The indication of how well informed the public is with regard to electricity supply matters also provides a pointer for seeking views of the public in the forthcoming consultation exercise.

Advice Sought

10. Members are invited to note the findings of this survey.

Electricity Supply in Hong Kong: Establishment Survey
Establishments covered by Sector

<i>Sectors⁵</i>	<i>No. of valid returns</i>
Manufacturing	289
Construction	293
Wholesale and retail, restaurants and hotels	258
Import/Export trades	282
Transport, storage and communications	278
Financing, insurance, real estate and business services	278
Community, social and personal services	323
<i>Total:</i>	2001

⁵ in accordance with the Hong Kong Standard Industrial Classification