



CB(1)1879/05-06(04)

June 28, 2006

Panel on Economic Services Special meeting on
Friday, 30 June 2006 at 10:45 am

Honorable members,

Hongkong Electric creates 80% more pollution than CLP (per kilowatt hour of energy produced - kWh). Yet HEC is making 4 times the net return from power generation compared to CAPCO (60% ExxonMobil and 40% CLP).

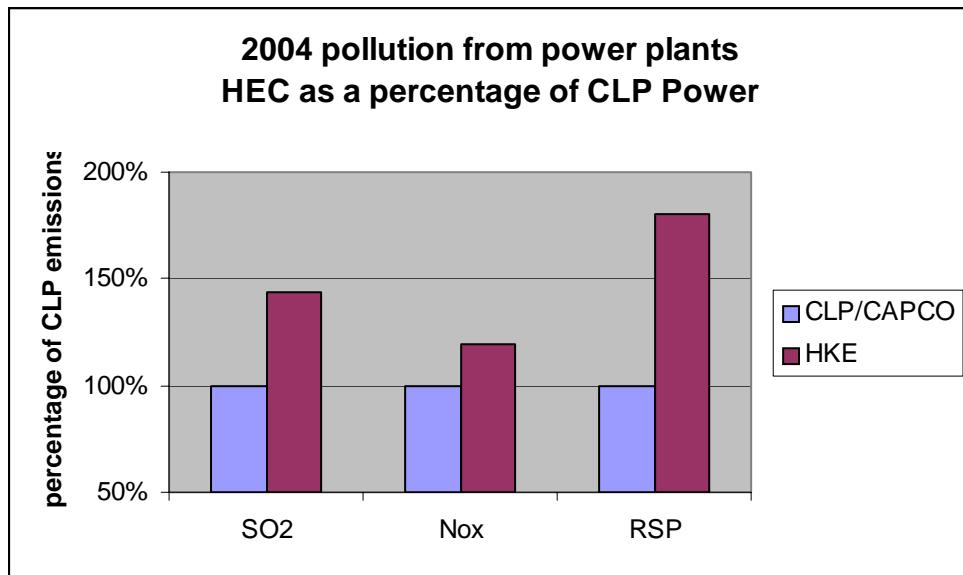
Why?

We need a level playing field for consumers and power producer in Hong Kong instead of special treatment for our dirtiest power company.

Hongkong Electric is the most polluting power company in Hong Kong per unit of power it generates. The process license for the Lamma Island plant is due for renewal in 2006 – and you need to review the process carefully in light of a pollution-based fair and equitable market for consumers in the future and the future electricity market.

Here is a comparison of Hongkong Electric vs. CAPCO (CLP/ExxonMobil).

1. HEC charges the public 30% more per kWh (\$1.15 vs \$0.88)
2. HEC generates 80% more pollution per kWh as CLP (see graph)¹
3. HEC makes four times the profit per kWh (\$0.57 vs \$0.14)²





There is no incentive by either user or supplier to reduce demand – and reduce pollution.

Peak Demand - During any given day it is easy to see that electricity demand increases during certain key times. For instance, when darkness falls, lights must be switched on and so electricity demand increases to a 'peak' level. This is also true for certain periods of the year, e.g., summer heat encourages us to switch on air conditioners.

So that in any given year there will be a "Peak of Peak" electricity demand that the present two electricity supply companies, CLP and HKE have been legally obliged by the Scheme of Control to meet.

They have been encouraged to do this by being awarded a predetermined agreed 'profit' on the capital equipment side (power generators, transmission lines etc) needed to meet this demand.

So if the "Peak of Peak" demand is, say, 100MW then the suppliers simply build and supply to this demand. The user has no incentive to reduce their peak demand because the electricity charge is (nominally) the same throughout the day and the year. The problem with this arrangement is that there is no incentive by either user or supplier to reduce demand.

By applying the "User Pays" principle, demand management is then brought in to play.

If the electricity demanded, ie, used, at the peak time is, say, three times the demand as at a normal 'low' demand period then this should be reflected in the price. I.e, three times the price per unit at peak time.

The user will then be aware of this as soon as they get their next electricity bill and will then seek methods and strategies to reduce their peak demand usage either by switching non-essential devices off, reducing their consumption and or by installing energy saving and energy efficient devices and equipment.

The obvious result from this simple principle will be more efficient usage of electricity and an immediate reduction in demand and use of fuel (filthy coal) at the supply side.

The end users electricity bill should not significantly increase because of the leveling out effect of the suppliers charging more at peak time and less during non-peak periods. The suppliers will also gain from the fact that they are not using as much fuel.

We then eliminate the need for new investment – except to provide cleaner energy.



Summary:

1. HEC as a company is so more pollution than CLP that its emissions caps should be much tighter to level the playing field. All caps should be based on pollution total pollution created by the company per kWh electricity generated.
2. The power companies must show us our daily usage figures so we can "shave the peak" and use less power – so we do not have to invest in more capacity which will just raise our prices.
3. The public should profit from reducing our demand based on the pollution we prevent. There must be no justification for prices to go up if we succeed in using less energy.

Regards,

A handwritten signature in black ink that reads "Annelise Connell".

Annelise Connell
Clear the Air



¹ Total power generated by CAPCO and HEC

(data from the companies' environmental reports. CLP data is available for 2005, but the HEC report for 2005 is not yet available, so we are using 2004 data)

Hongkong Electric

CLP Power

Parameter	Unit	2004
Operation		
Electricity generated	GWh	25,109
Coal consumed	TJ	133,403
Oil consumed	TJ	2,024
Gas consumed	TJ	85,777
Water consumed ⁽¹⁾	Mm ³	1.73
Makeup water ⁽¹⁾	Mm ³	0.90
Thermal efficiency	%	38.8
Air emissions		
CO ₂	kT	16,867
SO ₂	kT	51.8*
NOx	kT	28.6*
Particulates	kT	2.2*

Summary of Statistics

ENVIRONMENT		2004
ELECTRICITY GENERATED AT LAMMA POWER STATION		
Total electricity generated [GWh]		12,018
FUEL CONSUMED		
Coal [kT]		4,242
Light gas oil [kT]		5
Heavy fuel oil [kT]		5
LICENCE COMPLIANCE		
No. of Licence Limit Exceedance		0
Percentage of compliance [%]		100.0
TOTAL AIR EMISSION FROM LAMMA POWER STATION		
SO ₂ [kT]		35.7*
NO _x [kT]		16.4
Particulates [kT]		1.9
CO ₂ [million T]		10.4

² Net returns on power generation - 2005

HEC has no separate network business. They sell directly to consumers. CAPCO sells to CLP, who then add a mark up and sell to consumers. Yet the price to consumers is still lower than HEC by 30%.

We urge HEC to break out its network business, and make it available to CLP and any other power supplier in order to give consumers the best value for money – and the least pollution.

Year	Net return (HK\$ m)	Electricity sent out (GWh)
	CAPCO	HEC
2005	3,542	24,877
	6,134	10,755

(CLP data was available in early 2005. Data for HEC "electricity generated" or "sent out" is not yet available for 2005. Therefore we are using "electricity sold" for HEC.)