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Huge saving for China Light

$b power plan for Guangdong

The China Light and Power Co is considering a billion dollar-plus scheme to build a hydro-electric plant in Guangdong province.

And the massive pump-storage plant could save the company $400 million in power generating costs by the end of the decade.

The company's general manager, Mr William Stones, said yesterday that China Light and Power, together with the Guangdong Power Co, is now considering the final stage of a feasibility study into the plan.

It would involve building two pump-storage reservoirs on a possible site seven kilometres north of Shataukok.

According to Mr Stones, the projected plant would produce enough electricity to match about half the present output from the company's Tsing Yi generator — or four 200 megawatt units.

Outlining the plan, which would need Government approval, Mr Stones said negotiations with the Guangdong Power Co have been going on for about three months and some form of joint venture agreement now looks increasingly likely.

"It is still only a feasibility study, but I think Hongkong needs the plant and we are working hard towards getting it ready by 1990," he said afterwards.

Simply put, the idea is to pump water from one reservoir to another using cheap coal-fired power during the night, and then flood it downhill during the day through a hydro-electric generating plant.

Mr Stones

Even allowing for a 20 to 30 per cent wastage in power during generating, Mr Stones said, the scheme would still represent considerable savings over the cost of producing similar amounts of power through oil-fired generators.

He added that although the company envisages a joint venture pact with the Guangdong Power Co, the bulk, if not all, power generated would be fed into the Hongkong grid.

China Light and Power declined to detail total construction costs for the project, which would include building both reservoirs and generating plant, but Mr Stones hinted that the final bill could reach several billion dollars.

This compares with the $6.6 billion already earmarked for construction of the final phase of the Castle Peak B plant destined for completion around the same time and which involved a record £550 million loan package raised by a consortium of international banks.

According to Mr Stones, the company's study team is looking closely at sites about seven kilometres north of Shataukok in Guangdong province.

But he declined to give an estimate of exactly what size reservoirs would be needed to power the hydro-electric plant.

Behind the ambitious scheme — of which there are several successful examples in hilly parts of Britain, notably in Snowdon — is China Light and Power's belief that coal will continue to prove the cheapest source of power, apart from nuclear energy, during the next 20 years.

"As early as 1976, the company decided that coal was the only possible alternative to oil and other fossil fuels.

"And while costs will continue to increase, coal will still be about half the cost of oil by the end of the decade," Mr Stones told a lunch meeting of the Rotary Club of Hongkong.

Contracts with suppliers in Australia, South Africa, Canada and China have been signed to meet foreseeable needs, he said, adding that Castle Peak B alone will burn about 250 tons an hour when it comes on stream in 1990.

Excluding the present scheme, China Light and Power estimates total cost to develop Castle Peak and other commitments will reach $20 billion by 1990.

Plans to build a nuclear powered plant in co-operation with the Guangdong Power Co are still going on following a report earlier this year pinpointing three possible sites in the province.