Energy, Environment and Sustainability of Green Buildings

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5.1 INTRODUCTION

5.1.1 Electricity generation and consumption

Malaysia's total installed capacity at the end of 2004 was at 20,052.6 megawatt (MW), lower by 0.3 percent from 20,118.7 MW in 2003.Ninety-one percent of the installed capacity is located in Peninsular Malaysia, 5 percent in Sarawak and the remaining in Sabah. Electricity generation registered 89,098.4 gigawatt-hour (GWh) – an increase of 8.1 percent – as compared to 82,406.1 GWh in 2003. Peninsular Malaysia recorded the highest demand at 12,023 MW, while for Sarawak the figure was 686.4 MW. Sabah West Coast grid needed 318 MW and Sabah East Coast grid consumed 168 MW. (Christopher Teh)

In terms of electricity generation mix, the share of natural gas as energy input in power stations has decreased to 59.4 percent *vis- - v i s* 65.3 percent in 2003. The share of coal, however, increased from 24.6 percent in 2003 to 30 percent in 2004. Hydropower followed next with its share at 7.5 percent, while the remaining constituents were fuel oil and diesel, at 1.5 percent each. Therefore it is understood that hydroelectric provides the cheapest source of energy and that is why large dams are generally being built not only in Malaysia but also in other countries.