

POTENTIAL INNOVATION OF ENERGY EFFICIENCY BUILDING  
IN GOVERNMENT COMMUNITY COLLEGE

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## ABSTRACT

The management of Kolej Komuniti Bayan Baru (KKBB) building in Penang lamented that they need to pay high monthly electricity bill when compared to other community colleges of the same floor area. The aim of this study is to propose potential innovative solution(s) to KKBB building towards being an energy efficient building. The study begins with planning phase that is to review articles and journals. Then the data collection and interview was done to better understand the problems. Lastly, the data was analysed and detail proposal together with the payback period will be made. The results will be compared again with the literature review and data. The study has identified two solutions by using innovative products that are readily available in the market. The first solution is changing of water-cooled package air-conditioning system into Variable Refrigerant Flow (VRF) system. The second solution is changing of existing fluorescent lamps into Light Emitting Diode (LED).

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