ABSTRACT

Benchmarking is a method to determine the energy performance of buildings by calculating and controlling the performance of a set of similar buildings by comparing the building itself. Benchmarking method in Indonesia is still very simple. To assess the performance of buildings, the only variable used is EUI (Energy Use Intensity in kWh/m²) as a parameter of wasteful or not the consumption of building energy. Therefore, another variable is needed to make the benchmarking method more accurate as shown in the benchmarking score. The variables added to this research are the total building area and CDD (Cooling Degree Days) multiplied by the air-conditioned building area. The variable affects 63% on EUI with multiple linear regression analysis. The result of regression equation is used to find adjusted EUI, then we have benchmarkinore from percentile of adjusted EUI. Large actual EUI does not indicate the buildings with large energy usage. Because the benchmarking score also depends on relative adjusted EUI with total building area, air-conditioned building area, and CDD. In this study, benchmarking scores generated are then displayed on the BeMap website (Building Energy Map) to facilitate the building owners to do benchmarking.

Keywords: Benchmarking, Energy Use Intensity, Benchmrking score, building energy website