

BAB V

PENUTUP

5.1 Kesimpulan

Dampak penerapan *perforated aluminum* sebagai *fleksibel shading* untuk EEC pada Bangunan Kantor Kementerian Hukum dan HAM Provinsi Maluku dapat disimpulkan sebagai berikut :

Hasil simulasi pada gedung kantor Kementerian Hukum dan HAM Provinsi Maluku menghasilkan IECC 95,24 kWh/m².a dan telah memenuhi standar GBCI. Walaupun bangunan ini telah memenuhi standar bangunan hijau dan menggunakan kaca hemat energi TST 39% dan DST 27% dengan rasio kaca 57%, bangunan ini masih bisa melakukan penghematan. Penerapan *perforated aluminum* ukuran lubang antara 1 cm s/d 16 cm mampu mereduksi cahaya alami yang masuk sebesar 20,96% s/d 58,40%. *Perforated aluminum* ukuran lubang dua cm dalam penerapannya pada bangunan eksisting dan bangunan hijau memiliki IECC yang rendah, masing-masing 88,20 kWh/m².a dan 64,44 kWh/m².a dengan tingkat EEC 7,38% dan 32,38%. Penerapan *perforated aluminum* ini pada bangunan eksisting memiliki tingkat EEC sesuai standar IECC dari GBCI 45,72% dan ASEAN-USAID 43,46%. Jika strategi ini diterapkan dengan menggantikan AC COP 4.2 maka dalam lima tahun bisa menghemat Rp 321.769.177,75 dst.

5.2 Implikasi Penelitian

Implikasi penelitian dari dampak penerapan *perforated aluminum* sebagai *fleksibel shading* untuk EEC pada Bangunan Kantor Kementerian Hukum dan HAM Provinsi Maluku sebagai berikut :

1. Dampak penerapan *perforated aluminum* untuk EEC pada bangunan eksisting yang telah menggunakan kaca hemat energi dengan TST 39% dan DST 27% tidak begitu signifikan dikarenakan hanya dapat mereduksi IECC sebesar 4,48% s/d 8,68% dibandingkan dengan menggantikan AC COP 4.2 yang dapat mereduksi IECC 27,27%.
2. Nilai intensitas konsumsi energi sistem pendingin (IECC) pada standar GBCI untuk bangunan perkantoran masih bisa untuk dikurangi.

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