

$$(i) UEC = 365(n(E_{24} - 5P_m - E_{batt}) \frac{24}{t_{cd}} + (P_m(t_{a\&m} - (t_{cd} - 5)n)) +$$

$$(P_{sb}t_{sb}) + (P_{off}t_{off})) \text{ or,}$$

$$(ii) UEC = 365(n(E_{24} - 5P_m - E_{batt}) \frac{24}{(t_{cd}-5)} + (P_{sb}t_{sb}) + (P_{off}t_{off}))$$