

**Electrical Energy**

**Solution Card 2: Upgrade to high efficiency HVAC equipment**

|  |  |
| --- | --- |
| **Solution Card 2: Upgrade to high efficiency HVAC equipment** | |
| **Overview** | |
| *Hotel* | Green star |
| *Action* | Replace existing split unit ACUs with higher efficiency models (ex: A++++, A+++++ according to Egyptian standard 2016/1\_3795 |
| **Assumptions** | |
| *Exchange rate* | 15.65 EGP/USD |
| *EER of Existing AC unit* | 10.5 BTU/(h.W) |
| *EER of New AC unit* | 17.3 BTU/(h.W) |
| *Months of operation* | 6 months/year |
| *Hours of operation per day* | 10 hours/day |
| *Annual energy savings per 1000 BTU* | 67 kWh/1000 BTU |
| **Constraints** | |
| *Cost of energy* | 7.348 cents/kWh |
| **Economic Features** | |
| *CAPEX* | EGP .. |
| *OPEX* | Low |
| *Net annual Savings* | EGP .. |
| *Payback period* | .. years |
| *Lifetime* | .. years |
| *Annual CO2 reduction* | .. tCO2/year |