**Assessment for Idi-Araba. 3 rooms office space**

Total assessed load capacity: 2270 watt,

Total continuous used load capacity: 880 watt,

Total inverter capacity load to size up the requirements gives 3.5kva with 80Amps charge controller, 4 pieces of well effective 450 watt solar panels on adequate maximum management with if grid power supply reaches up to 3-5 hours a day.

**Load result**

|  |  |
| --- | --- |
| **Electrical Appliance** | **Consuming Power** |
| All steady load  (lightings, fans, 3 televisions and one refrigerator) | 980 watts |
| Other peripheral (1 laser jet printer, 3 desktop computers) | 1290 watts |
|  |  |

**Optima required solar installation results**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Qty** | **Rate** | **Amount** |
| 3.5kva 24v hybrid inverter with 80Amps MPPT solar charge controller lithium battery wake-up function | 1 | 560,000 | 560,000 |
| 450 watts Canadian solar panels | 4 | 130,000 | 520,000 |
| SMTF 12 220ah inverter battery | 2 | 248,000 | 496,000 |
| PV coaxial 10mm diameter white copper solar cable | 20 | 3,100 | 62,000 |
| Electrical 4mm copper AC wire | 30 | 650 | 19,500 |
| Protection kits |  | 45,000 | 45,000 |
| Installation kits |  | 75,000 | 75,000 |
|  |  |  |  |
| Logistic |  |  | 60,000 |
| Workmanship |  |  | 120,000 |
|  |  |  |  |
| Total |  |  | 1,957,500 |