SCADA (Supervisory Control & Data Acquisition) System

The Challenge:

- *To provide **remote & autonomous power** to **2,000+** Industrial Automation & Control Systems in the **dry, sub-tropical dessert climate** of **Oman**.*
  - *These Industrial **SCADA WiMAX Base Station Installations** are used for well monitoring.*
  - *Oman's Climate: **extremely hot/harsh environment**, with very little to no rainfall and **temperature ranges of 15 °C to 40 °C**. Plagued by hot, dust-laden winds & very strong **Sandstorms**.*
- *Traditionally deployment of these type of installations relied on the use of fossil fuel-based diesel generators—which tend to be expensive to operate, harmful to the environment and limited by geography, transportation costs and supply. Further, rising fuel costs, fuel thefts and required regular maintenance increases the overall operational costs of any remote-based communications' base station.*

"Morningstar's products = high reliability & long operating life!"

The Solution:

- *A **100% Stand-alone Photovoltaic Installation** using **Morningstar's TriStar MPPT™ 60A Charge Controllers***
- *The TriStar MPPT Controllers, with **Morningstar's patented TrakStar™ tracking algorithm**, provide maximum energy harvest for this remote installation site—under all operating conditions. [**The Industry's Highest Peak Power Efficiency Rating: 99%**]*
- *The **TriStar MPPT Controllers** are **environmentally optimized and offer extensive weather protections.** Rated for an ambient operating temperature range of -40 °C to +45 °C, they are the **perfect choice for these extreme Oman desert installations**.*
- *The TS-MPPT-60's **robust thermal design** (with passive heatsink convection cooling) dissipates heat quickly –reducing the operating temperature of the controller as well as protecting the controller's sensitive electronic components from dust, debris and sand particles—enabling **maximum reliability and a long operating life.***
- *The TS-MPPT-60's **low self-consumption** means more autonomous power to power the base-station's primary functions**.***

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World's Leading Solar Controllers & Inverters