Case Wafa-Mellitah!

Naps Systems Group
Naps Systems Group
Wafa-Mellitah Pipeline, Libya

- Large stand-alone solar electric systems for gas pipeline cathodic protection, telecommunications, monitoring, valve control and area lighting
- Project completed in autumn 2004
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Site Specific Issues

- All sites located in uninhabited areas
- Electricity grid far and too expensive to extend
- Temperatures above +55°C
- Often strong sand storms
Objectives for the Project

• Commercially most competitive solution
• High availability of the pipeline
• Energy for the pipeline monitoring, control system and lighting in order to secure safety
• Flexibility for locating the sites
• Short construction time
• Minimised need for maintenance and no need for fuel supply
- Combined load of 300-3000W per site
- Total of 27 solar electric systems along the pipeline
- Special system control units for each site with Scada remote monitoring capabilities
- Naps power solutions operating with the other site equipment in MODBUS protocol
- Autonomy time secured in case of emergency
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System Components

- 24-300 pcs of Naps 100-watt modules per site
- Battery bank for 4 days autonomy
- System management by custom-made Naps NSCi professional control unit
- Rectifiers for battery charging
- Other equipment: structures, panel centres, cables, battery main fuses and accessories
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Implementation

- Installation time 1-4 days with circa 10 persons
- Locally supplied foundation, equipment shelter and complete installation
- Site supervision and start-up provided by Naps
- Customer is pleased about Naps intensive service and the high level of technology.
Conclusions

- The initial investment was low compared with any other form of energy supply
- The implementation was done rapidly in 8 weeks
- Operational costs are very low
- Maintenance: one 1-2 hrs visit per site per year
- Very reliable power supply
- New orders under processing as a result of good implementation
Thank you!
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