LOAD ANALYSIS

Month:

AC LOADS

Load Description	Qty	Power Rating (W)	Operating Time (hrs/day)	Energy Consumption (Wh/day)

DC LOADS

Total AC Power		**W**
Total DC Power		**W**
Total AC Energy Consumption		**Wh**
Total DC Energy Consumption		**Wh**
Inverter Efficiency		
Weighted Operating Time		**hr/day**
Average Daily DC Energy Consumption		**Wh/day**

CRITICAL DESIGN ANALYSIS

Month	Average Daily DC Energy Consumption (Wh/day)	Array Orientation 1		Array Orientation 2		Array Orientation 3	
		Insolation (PSH/day)	Design Ratio	Insolation (PSH/day)	Design Ratio	Insolation (PSH/day)	Design Ratio
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							

Critical Design Month		
Optimal Orientation		
Average Daily DC Energy Consumption		**Wh/day**
Insolation		**PSH/day**

BATTERY-BANK SIZING

Average Daily DC Energy Consumption for Critical Design Month		**Wh/day**
DC System Voltage		**VDC**
Autonomy		**days**
Required Battery-Bank Output		**Ah**
Allowable Depth-of-Discharge		
Weighted Operating Time		**hrs**
Discharge Rate		**hrs**
Minimum Expected Operating Temperature		**°C**
Temperature/Discharge Rate Derating Factor		
Battery-Bank Rated Capacity		**Ah**
Selected Battery Nominal Voltage		**VDC**
Selected Battery Rated Capacity		**Ah**
Number of Batteries in Series		
Number of Battery Strings in Parallel		
Total Number of Batteries		
Actual Battery-Bank Rated Capacity		**Ah**
Load Fraction		
Average Daily Depth-of-Discharge		
		%

ARRAY SIZING

Average Daily DC Energy Consumption for Critical Design Month		**Wh/day**
Critical Design Month Insolation		**PSH/day**
DC System Voltage		**VDC**
Battery Charging Efficiency		
Required Array Maximum-Power Current		**A**
Soiling Factor		
Rated Array Maximum-Power Current		**A**
Temperature Coefficient for Voltage		**/°C**
Maximum Expected Module Temperature		**°C**
Rating Reference Temperature		**°C**
Rated Array Maximum-Power Voltage		**VDC**
Module Rated Maximum-Power Current		**A**
Module Rated Maximum-Power Voltage		**VDC**
Module Rated Maximum Power		**W**
Number of Modules in Series		
Number of Module Strings in Parallel		
Total Number of Modules		
Actual Array Rated Power		**W**