## Electrical Budget Worksheet (CARROLL E Dana 24) 1 Calculate your DC Loads:

Lighting       Amps       Hours       AH/Day         Running Lights       0.5       9       0.0         Strobe Light       0.5       9       0.0         Strobe Light       0.5       0.0       0.0         Strobe Light       0.6       0.0         Cabin Light (Burescent)       0.0       0.0         Other       Lighting AH       0.0         Prop Solenoid       0.00       0.00         Other       0.00       0.00         VHF (transmit)       4.0       0.5       2.0         SSB (transmit)       1.2       9       1.8       0.0         SSB (transmit)       1.2       0.2       3.0       2.0         SSB (transmit)       1.0       0.0       0.0       0.0         Other       0.00       0.0       0.0       0.0         SSB (transmit)       1.0       0.0       0.0       0.0         SSB (transmit)       1.0       2.0	1	Calculate	your DC Loads.				
Running Lights         0.5         9         4.5           Masthead Tricolor Light         0.5         9         4.5           OS preader Lights         1.6         0.5         0.8           Cabin Light (big incandescent)         0.2         5         1.0           Cabing Light (big incandescent)         0.0         0.0         0.0           Cabing Light (big incandescent)         0.0         0.0         0.0           Instrument Lights         0.1         9         0.9           Handheld Spot Light         0.1         9         0.9           Other         Lighting AH         C.2.2         0.0           Other         Calley AH         0.0         0.0           Other         Galley AH         0.0         0.0           VHF (receive)         0.4         24         9.6           VHF (receive)         0.4         24         9.6           VHF (receive)         1.2         0.1         24         2.6           SB Digit controller         0.0         0.0         0.0         0.0           Galley AH         0.2         1.2         2.6         3.0         0.0           SB Digit controller         0.0         1.2		Liahtina		Amps	Hours	AH/Dav	
Anchor Light         0.0           Strobe Light         1.6         0.5           Cabin Light (big incandescent)         0.0           Cabing Light (big incandescent)         0.0           Cabing Light (big incandescent)         0.0           Instrument Lights         0.1         9         9.9           Handheld Spot Light         0.1         9         0.0           Other         Lighting AH         7.2           Galley         Amps         Hours         AH/Day           Prop Solenoid         0.0         0.0         0.0           Other         Calley AH         0.0         0.0           VHF (receive)         0.4         24         9.6           VHF (receive)         0.4         24         9.6           VHF (receive)         0.4         24         9.6           VHF (receive)         0.1         2.0         2.5         3.0           SSB (receive)         2.0         1.5         3.0         SSB (receive)         2.0         1.5         3.0           SSB (receive)         2.0         1.5         3.0         SSB (receive)         0.0         0.0         0.0         0.0         0.0         0.0         0.0		33	Running Lights				
Strobe Light         1.6         0.5         0.8           Cabin Light (small)         0.2         5         1.0           Cabing Light (flourescent)         0.0         0.0           Cabing Light (flourescent)         0.0         0.0           Instrument Lights         0.1         9         0.9           Handheld Spot Light         0.1         9         0.9           Other         Lighting AH         7.2           Galley         Amps         Hours         AHDay           Prop Solenoid         0.0         0.0         0.0           Other         Calley AH         0.0         0.0           VHF (receive)         0.4         24         9.6           VHF (receive)         0.4         24         9.6           VHF (receive)         2.0         1.5         3.0           SSB fige cerve)         2.0         1.5         3.0           SSB fige conver         0.0         0.2         0.0           Galley AH         0.02         0.0         0.0           Galley AH         0.0         2.6         0.0           SSB fige cerve)         2.0         1.5         3.0           SSB fige cerve)			Masthead Tricolor Light	0.5	9	4.5	
Spreader_lights         1.6         0.5         0.8           Cabin Light (Band)         0.2         5         0.0           Cabin Light (Burgecent)         0.0         0.0           Instrument Lights         0.1         9         0.9           Handheid Spot Light         0.0         0.0         0.0           Other         Lighting AH			Anchor Light			0.0	
Cabin Light (sum and secont) Cabing Light (flourescent) Cabing Light (flourescent) Instrument Lights Other         0.1         9         0.9           Handheld Spot Light Other         0.1         9         0.9           Cabing Light (flourescent) Other         0.1         9         0.9           Cabing Light (flourescent) Other         0.0         0.0         0.0           Cabing Light (flourescent) Other         Amps         Hours         AH/Day           Refigeration Prop Solenoid         Amps         Hours         AH/Day           Outher         Calley AH         0.0         0.0           VHF (rensmit)         4.0         0.5         2.0           VHF (rensmit)         1.2         9         1.8         3.0           SSB (reneive)         2.0         1.5         3.0           SSB (rensmit)         1.20         0.25         3.0           SSB (reneive)         1.1         24         2.4           Weather fax receiver         0.0         0.0         0.0           Radar (transmit)         4.0         1.8         7.2           Adar (transmit)         4.0         1.8         7.2           Adar (transmit)         4.0         0.0         0.0           C			Strobe Light			0.0	
Cabing Light (big incandescent) 0.0 Cabing Light (burescent) 0.0 Instrument Lights 0.1 9 0.3 Handheld Spot Light 0.0 Other Lighting AH 2.2 Salley AH 2.2 Salley AH 0.00 Prop Solenoid 0.0 Other Calley AH 0.00 Cher Calley AH 0.00 Computer (screen off) 0.00 Cher 0.00 Cher 0.00 Cher 0.00 Cher 0.00 Cher 0.00 Cher 1.00 Cher 0.00 Cher 0.00 Cher 0.00 Cher 0.00 Cher 0.00 Cher 0.00 Cher 1.00 Cher 0.00 Cher 1.00 Cher 1.00 Ch			Spreader Lights	1.6	0.5	0.8	
Cabing Light (florescent) Instrument Lights Other Lighting AH Refrigeration Prop Solenoid Other Calley AH Refrigeration Prop Solenoid Other Calley AH Coller Calley AH Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Calley AH Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coller Coll			Cabin Light (small)	0.2	5	1.0	
Instrument Lights       0.1       9       0.9         Handheid Spot Light       .1       9       0.9         Other       Lighting AH       .7.2         Galley       Amps       Hours       AH/Day         Prop Solenoid       0.0       0.0       0.0         Other       Galley AH       .0.0       0.0         Character       Autopilot       1.2       9       10.8         VHF (receive)       0.4       9.6       24       9.6         VHF (receive)       0.4       0.5       2.0         SSB (receive)       2.0       1.5       3.0         SSB (receive)       0.0       1.2       9       1.8         OCPS       0.6       24       14.4       1.8       7.2         Madar (stansmit)       1.2       7.2       8.6       8.4       1.8       7.2         Als       0.0       1.8       7.2       8.6       8.4       1.8       7.2         Als       0.0       1.8       7.2       8.6       8.4       0.0       0.0         Computer (screen off)       0.0       0.0       0.0       0.0       0.0       0.0         Cher			Cabing Light (big incandescent	)		0.0	
Handheid Spöt Light Other0.0 0therCalley Pero Solenoid OtherAmpsHoursAH/Day 0.0 0.0 0.0 0.0ElectronicsAmpsHoursAH/Day 0.0Autopilot1.2910.8 0.5VHF (receive)0.4249.6 0.5VHF (receive)0.4249.6 0.5VHF (remarnit)12.00.253.0 3.0 SSB (receive)SSB (receive)2.01.53.0 3.0 SSB (receive)SSB (receive)0.62414.4 1.8 1.2Instruments0.11.27.2 8.6 Radar (transmit)4.0Als0.0 Computer (screen off) Computer (screen off)<			Cabing Light (flourescent)			0.0	
Other     Lighting AH     7.2       Galley     Amps     Hours     AH/Day       Prop Solenoid     0.0     0.0       Other     Galley AH     0.0       Balley AH     0.0     0.0       VHF (receive)     0.4     9.6       VHF (receive)     0.4     9.6       VHF (receive)     0.4     9.6       VHF (receive)     0.4     9.6       SB (receive)     2.0     1.5       SB (rearwit)     1.2.0     0.25       SB (rearwit)     1.2.0     0.25       SB (rearwit)     1.2     7.2       Weather fax receiver     0.0       Radar (transmit)     4.0     1.8       Als     0.0     0.0       Computer (screen off)     0.0       Computer (screen off)     0.0       Computer (screen on)     3.0     2       Other     0.0     0.0			Instrument Lights	0.1	9	0.9	
Lighting AH       7.2         Galley       Amps       Hours       AH/Day         Prop Solenoid       0.0         Other       Galley AH       0.0         Galley AH       0.0         Hours       AH/Day         Autopilot       1.2       9       10.8         VHF (reserve)       0.4       24       9.6         VHF (rensmit)       4.0       0.5       2.0         SBB (reserve)       2.0       1.5       3.0         SSB (reserve)       2.0       1.5       3.0         SSB (reserve)       2.0       1.5       3.0         SSB (reserve)       0.0       0.25       3.0         SSB (reserve)       0.6       24       14.4         Instruments       0.1       1.2       7.2         Radar (transmit)       4.0       1.8       7.2         Als       0.0       0.0       0.0       0.0         Computer (screen off)       0.0       0.0       0.0         Computer (screen on)       3.0       2       6.0       0.0         Other       0.0       0.0       1.5       0.0         Device       0.0       0.0			Handheld Spot Light			0.0	
Galley       Refrigeration Prop Solenoid Other       Amps       Hours       AH/Day 0.0         Galley AH       0.00         Cher       Galley AH       0.00         Electronics       Amps       Hours       AH/Day 0.0         Autopilot       1.2       9       10.8         VHF (receive)       0.4       0.5       2.0         SSB (receive)       2.0       1.5       3.0         SSB (receive)       0.1       2.4       2.4         OSSB (receive)       0.1       2.4       2.4         Weather tax receiver       0.1       2.4       2.4         Radar (transmit)       12.0       0.25       3.0         SSB (receive)       0.1       2.4       2.4         Weather tax receiver       0.0       0.0       0.0         Radar (transmit)       4.0       1.8       7.2         Alls       0.0       0.0       0.0       0.0         Computer (screen off)       0.0       0.0       0.0         Other       Electronics AH       Eff.0       0.0         Other       Watts       Hrs/day       AH/Day         Microwave       0.0       0.0       0.0			Other		_	0.0	
Refrigeration Prop Solenoid Other0.0 Galley AH0.0 0.00ElectronicsAmps Autopilot1.2 99 10.8 9Kutopilot1.2 99 910.8 9VHF (receive)0.4 2424 98 996 10.5 3.0 3.00 3SB (receive)2.0 1.5 3.00 3SB (receive)SSB (receive)2.0 0.150.25 3.00 3.00 3SB (receive)0.1 2.4 2.4Radar (standby)1.2 1.27.2 7.2Radar (standby)1.2 1.27.2 7.2Radar (standby)1.2 0.00 2 0.00 Computer (screen off) Computer (serien off) 0.00 0.00 0.000.00 0.00PlumbingAmps HoursAH/Day 0.00 0.00 0.00 0.01Plumbing Fresh Water Pump Bilge Pump(s) 0.00 0.00 0.010.00 0.00 0.00 0.01Plumbing Kreen Microwave Ochargers (nicad) 0.00 0.00 0.011.5InverterWatts Microwave 0.00 0.024H/Day 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00				Lighting AH		7.2	
Refrigeration Prop Solenoid Other0.0 Galley AH0.0 0.00ElectronicsAmps Autopilot1.2 99 10.8 9Kutopilot1.2 99 910.8 9VHF (receive)0.4 2424 98 996 10.5 3.0 3.00 3SB (receive)2.0 1.5 3.00 3SB (receive)SSB (receive)2.0 0.150.25 3.00 3.00 3SB (receive)0.1 2.4 2.4Radar (standby)1.2 1.27.2 7.2Radar (standby)1.2 1.27.2 7.2Radar (standby)1.2 0.00 2 0.00 Computer (screen off) Computer (serien off) 0.00 0.00 0.000.00 0.00PlumbingAmps HoursAH/Day 0.00 0.00 0.00 0.01Plumbing Fresh Water Pump Bilge Pump(s) 0.00 0.00 0.010.00 0.00 0.00 0.01Plumbing Kreen Microwave Ochargers (nicad) 0.00 0.00 0.011.5InverterWatts Microwave 0.00 0.024H/Day 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00							
Prop Solenoid Other         0.0 Galley AH         0.0 0.0           Electronics         Amps Autopilot         1.2 9         9         10.8 9           VHF (receive)         0.4 24         24         98           VHF (receive)         2.0 1.5         3.0           SSB (receive)         2.0         1.5         3.0           SSB (ransmit)         12.0         0.25         3.0           SSB (ransmit)         1.0         0.25         3.0           SSB (receive)         2.0         1.5         3.0           SSB (ransmit)         1.0         2.4         14.4           Instruments         0.1         2.4         2.4           Weather fax receiver         0.0         0.0         0.0           Radar (transmit)         4.0         1.8         7.2           AlS         0.0         0.0         0.0         0.0           Computer (screen off)         0.0         0.0         0.0         0.0           Computer (screen off)         0.0         0.0         0.0         0.0           Other         Plumbing AH         1.5         1.5         0.0         0.0           Bilge Pump(6)         0.0         0.0         0.0		Galley		Amps	Hours	AH/Day	
Other     0.0       Galley AH     0.0       Electronics     Amps     Hours     AH/Day       Autoplict     0.4     24     9.6       VHF (receive)     0.4     24     9.6       VHF (receive)     0.4     0.5     2.0       SSB (receive)     2.0     0.25     3.0       SSB (receive)     0.0     0.0     0.0       SSB (receive)     0.1     24     2.4       Instruments     0.1     24     2.4       Instruments     0.1     24     2.4       Instruments     0.1     24     2.4       Instruments     0.0     1.8     7.2       Addar (standby)     1.2     7.2     8.6       Radar (transmit)     4.0     1.8     7.2       Als     Createro     0.0     0.0       Computer (screen off)     0.0     0.0       Other     Plumbing AH     1.5       Bilge Pump(s)     0.0     0.0       Other     Inverter AH     0.0							
Galley AHO.0ElectronicsAmpsHoursAH/DayAutopilot1.2910.8VHF (receive)0.4249.6VHF (transmit)4.00.52.0SSB (receive)2.01.53.0SSB bigital controller0.00.624Instruments0.12.43.8Weather fax receiver0.00.8Radar (transmit)4.01.87.2Als0.01.27.28.6Radar (transmit)4.01.87.2AlS0.00.00.00.0Energy Monitors0.00.0Stereo0.00.0Computer (screen off)0.00.0Computer (screen on)3.026.0Computer (screen on)3.026.0Computer (screen on)3.020.0Other0.00.31.5Bilge Pump(s)0.31.5Other0.00.0Plumbing AH1.5InverterWattsHrs/dayMicrowave0.0Other0.0Inverter AH0.0Corrse Energy Consumption AH/Day75.72Alternative Energy Sources DeviceAmpsMicrowave0.0Cortribution of AES AH/Day40.0Wind, avg0.0Water, avg.0.0Cortribution of AES AH/Day40.0SRange of Battery Use0.50 <th></th> <th></th> <th>•</th> <th></th> <th></th> <th>0.0</th>			•			0.0	
ElectronicsAmps AutopilotHours 1.2AH/Day 9VHF (receive)0.4249.6VHF (ransmit)4.00.253.0SSB (receive)2.01.53.0SSB (receive)2.01.53.0SSB (receive)2.01.53.0SSB (receive)2.01.53.0SSB (ransmit)12.00.253.0SSB (rigital controller GPS0.62414.4Instruments0.1242.4Weather fax receiver0.0Radar (transmit)4.0Radar (transmit)4.01.87.2AIS0.01.27.28.6Radar (transmit)4.01.87.2AIS0.00.00.00.0Computer (screen off) Computer (screen off) Other0.00.0Computer (screen off) Other0.31.5Bilge Pump(s) Other0.31.5Bilge Pump(s) Other0.31.5Bilge Pump(s) Other0.00.0Other0.00.0OtherInverter AH0.0Gross Energy Consumption AH/Day75.72Alternative Energy Sources DeviceAmps AngsHrs/day AH/day AH/daySolar, avg (132 watts) Solar, avg (132 watt			Other		_		
Autopilot         1.2         9         10.8           VHF (receive)         0.4         24         9.6           VHF (reasmit)         4.0         0.5         2.0           SSB (receive)         2.0         1.5         3.0           SSB (transmit)         12.0         0.25         3.0           SSB Digital controller         0.0         0.1         24         14.4           Instruments         0.1         24         2.4         14.4           Instruments         0.1         24         2.4         1.2         7.2         8.6           Radar (transmit)         4.0         1.8         7.2         A.6         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0				Galley AH	L	0.0	
Autopilot         1.2         9         10.8           VHF (receive)         0.4         24         9.6           VHF (reasmit)         4.0         0.5         2.0           SSB (receive)         2.0         1.5         3.0           SSB (transmit)         12.0         0.25         3.0           SSB Digital controller         0.0         0.1         24         14.4           Instruments         0.1         24         2.4         14.4           Instruments         0.1         24         2.4         1.2         7.2         8.6           Radar (transmit)         4.0         1.8         7.2         A.6         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0							
VHF (receive)         0.4         24         9.6           VHF (transmit)         4.0         0.5         2.0           SSB (transmit)         12.0         0.25         3.0           SSB Digital controller         0.6         24         14.4           Instruments         0.1         24         2.4           Weather fax receiver         0.0         Radar (standby)         1.2         7.2         8.6           Radar (transmit)         4.0         1.8         7.2         8.6         Radar (transmit)         4.0         1.8         7.2           AIS         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0		Electroni					
VHF (transmit)         4.0         0.5         2.0           SSB (transmit)         2.0         1.5         3.0           SSB Digital controller         0.0         0.0           GPS         0.6         24         14.4           Instruments         0.1         24         2.4           Weather fax receiver         0.0         0.8         7.2         8.6           Radar (transmit)         4.0         1.8         7.2         8.6           Computer (screen off)         0.0         2         6.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0			•		-		
SSB (receive)         2.0         1.5         3.0           SSB (transmit)         12.0         0.25         3.0           SSB (gial controller         0.0         0         0           GPS         0.6         24         14.4           Instruments         0.1         24         2.4           Weather fax receiver         0.0         0           Radar (standby)         1.2         7.2         8.6           Radar (transmit)         4.0         1.8         7.2           AlS         0.0         0.0         0.0           Energy Monitors         0.0         0.0         0.0           Computer (screen off)         0.0         0.0         0.0           Computer (screen on)         3.0         2         6.0           Computer (screen on)         3.0         2         6.0           Other         0.0         0.0         0.0         0.0           Uter         Wates Harszan         0.0         0.0         0.0           Other         0.0         0.0         0.0         0.0         0.0           Inverter         Wates         Hrs/day         AH/Day         0.0         0.0			. ,				
SSB (transmit)         12.0         0.25         3.0           GPS         0.6         24         14.4           Instruments         0.1         24         2.4           Weather fax receiver         0.0         Radar (standby)         1.2         7.2         8.6           Radar (transmit)         4.0         1.8         7.2         8.6         0.0           Energy Monitors         0.0         0.0         0.0         0.0         0.0           Computer (screen off)         0.0         0.0         0.0         0.0         0.0           Computer (screen on)         3.0         2         6.0         0.0         0.0           Computer (screen on)         3.0         2         6.0         0.0         0.0           Other         Unumbing         Amps         Hours         AH/Day         0.0           Other         Plumbing AH         1.5         0.0         0.0         0.0           Other         Plumbing AH         1.5         0.0         0.0         0.0           Other         Plumbing AH         1.5         0.0         0.0         0.0         0.0           Gross Energy Consumption AH/Day         75.7         2			. ,				
SSB Digital controller       0.6       24       14.4         Instruments       0.1       24       2.4         Weather fax receiver       0.0       Radar (standby)       1.2       7.2       8.6         Radar (transmit)       4.0       1.8       7.2       A.6         Radar (transmit)       4.0       1.8       7.2       A.6         Radar (transmit)       4.0       1.8       7.2       A.6         Computer (screen off)       0.0       0.0       0.0       0.0         Computer (screen on)       3.0       2       6.0       0.0         Other       Electronics AH       67.0       0.0       0.0       0.0         Plumbing       Amps       Hours       AH/Day       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0							
GPS         0.6         24         14.4           Instruments         0.1         24         2.4           Weather fax receiver         00         Radar (standby)         1.2         7.2         8.6           Radar (transmit)         4.0         1.8         7.2         A.6           Computer (screen off)         0.0         0.0         0.0         0.0           Computer (screen off)         0.0         0.0         0.0         0.0           Computer (screen on)         3.0         2         6.0         0.0           Computer (screen on)         3.0         2         6.0         0.0           Computer (screen on)         3.0         2         6.0         0.0           Other         Electronics AH <b>67.0</b> 0.0         0.0           Plumbing         Amps         Hours         AH/Day         0.0           Other         Vatts         Hrs/day         AH/Day         0.0           Other         Vatts         Hrs/day         AH/Day         0.0           Other         Inverter AH <b>0.0</b> 0.0         0.0           Gross Energy Consumption AH/Day <b>75.7 2</b> Alternative Energy Sourc			· · · · · ·	12.0	0.25		
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Radar (transmit)       1.2       7.2       8.6         Radar (transmit)       4.0       1.8       7.2         AIS       0.0         Energy Monitors       0.0         Stereo       0.0         Computer (screen on)       3.0       2       6.0         Other       0.0       0.0       0.0       0.0         Plumbing Fresh Water Pump       5.0       0.3       1.5         Bilge Pump(s)       0.0       0.0       0.0       0.0         Other       Plumbing AH       1.5       1.5         Inverter       Water Numa       0.0       0.0       0.0         Other       Inverter AH       0.0       0.0       0.0         Gross Energy Consumption AH/Day       75.7       2       Alternative Energy Sources       8       40.0         Device       Amps       5.0 <t< th=""><th></th><th></th><th></th><th>0.1</th><th>24</th><th></th></t<>				0.1	24		
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Microwave Nickey Ni				Plumbing AH	L	1.5	
Microwave Nickey Ni							
<ul> <li>Chargers (nicad) Other</li> <li>Inverter AH</li> <li>O.0 Other</li> <li>Gross Energy Consumption AH/Day</li> <li>75.7</li> <li>Alternative Energy Sources Device Amps Hrs/day AH/day Solar, avg (132 watts)</li> <li>Solar, avg (132 watts)</li> <li>Solar, avg.</li> <li>O.0 Wind, avg</li> <li>O.0 Water, avg.</li> <li>Contribution of AES AH/Day</li> <li>Net Energy Consumption, AH/Day</li> <li>Seried Hours Between Charging</li> <li>Range of Battery Use</li> <li>Recommended Battery Capacity</li> <li>Alternator Output, Amps</li> <li>Charge Efficiency Factor</li> <li>O.95</li> </ul>		Inverter		Watts	Hrs/day		
Other     0.0       Inverter AH     0.0       Gross Energy Consumption AH/Day     75.7       2     Alternative Energy Sources Device     Amps     Hrs/day     AH/day       Solar, avg (132 watts)     5.0     8     40.0       Wind, avg     0.0     0.0       Water, avg.     0.0       Contribution of AES AH/Day     40.0       3     Net Energy Consumption, AH/Day     35.7       4     Desired Hours Between Charging     48       5     Range of Battery Use     0.50       6     Recommended Battery Capacity     143       7     Alternator Output, Amps     80       8     Charge Efficiency Factor     0.95							
Inverter AH       0.0         Gross Energy Consumption AH/Day       75.7         2       Alternative Energy Sources Device       Amps Device       Amps AH/day Solar, avg (132 watts)       5.0       8       40.0         Wind, avg Water, avg.       0.0       0.0       0.0       0.0         3       Net Energy Consumption, AH/Day       35.7       35.7         4       Desired Hours Between Charging       48         5       Range of Battery Use       0.50         6       Recommended Battery Capacity       143         7       Alternator Output, Amps       80         8       Charge Efficiency Factor       0.95							
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3Net Energy Consumption, AH/Day35.74Desired Hours Between Charging485Range of Battery Use0.506Recommended Battery Capacity1437Alternator Output, Amps808Charge Efficiency Factor0.95			Contribution of AES AH/Day		Г	40.0	
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5Range of Battery Use0.506Recommended Battery Capacity1437Alternator Output, Amps808Charge Efficiency Factor0.95	3	Net Energ	y Consumption, AH/Day		Г	35.7	
5Range of Battery Use0.506Recommended Battery Capacity1437Alternator Output, Amps808Charge Efficiency Factor0.95							
6Recommended Battery Capacity1437Alternator Output, Amps808Charge Efficiency Factor0.95	4	Desired Hours Between Charging				48	
7     Alternator Output, Amps     80       8     Charge Efficiency Factor     0.95	5	Range of Battery Use			Γ	0.50	
8 Charge Efficiency Factor 0.95	6	Recommended Battery Capacity			Γ	143	
	7	Alternator Output, Amps			Ľ	80	
9 Minimum Minutes to Charge 56	8	Charge Efficiency Factor				0.95	
	9	Minimum	Minutes to Charge		Γ	56	

Calculate using average water consumption. This should be zero unless the boat leaks.

All values assume inverter efficiency = 85%. Power factor may mess up this estimate.

Assumes one large panel. Assumes AIR Marine wind turbine in good location.

For example, from 50-85% state of charge.

Target would be 25% flooded, 40% gel, of capacity.

Gels = 95%, flooded cells = 85%

Assumes alternator runs at full output.