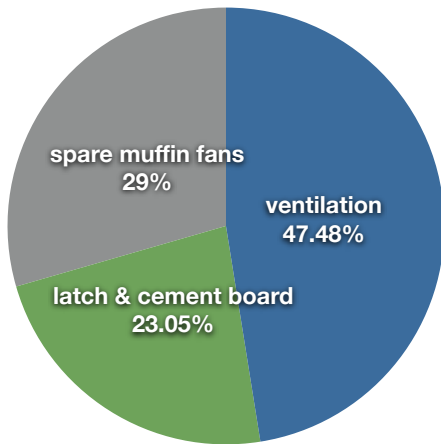


# Expense Report

<b>System Component</b>	Vented Generator Enclosure
<b>Start Date</b>	Jul 4, 2009
<b>Completion Date</b>	Jul 5, 2009

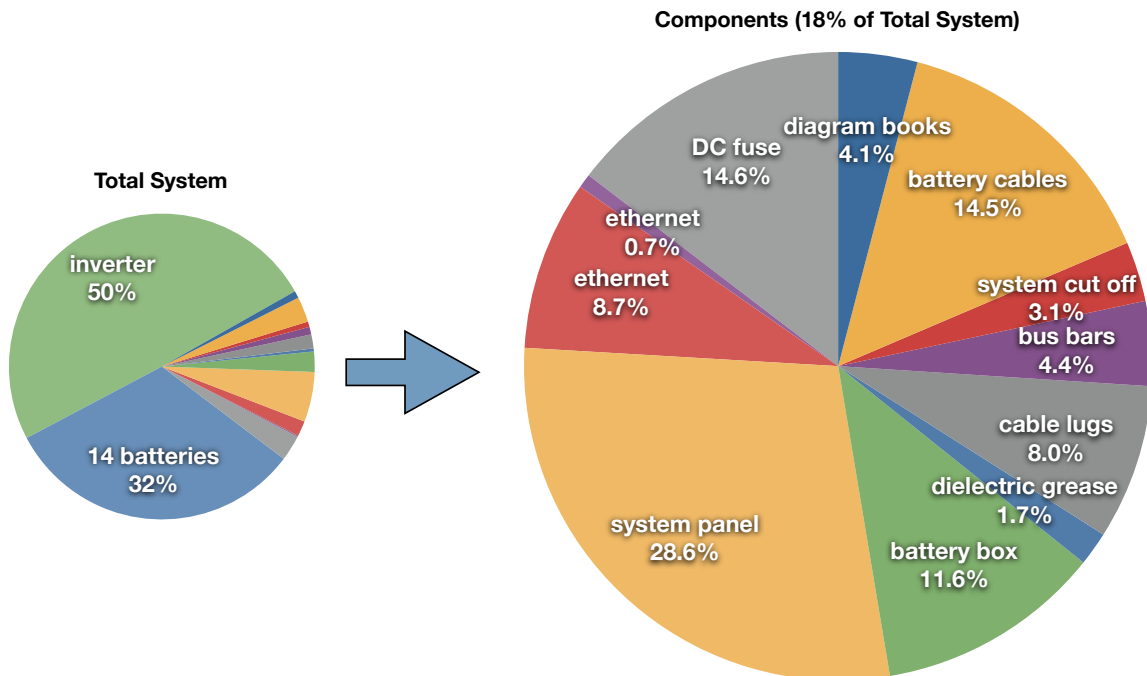
Item	Cost	Description
ventilation	\$51.50	3x muffin fans 115 VAC 4-5/8" x 1-1/2" 100-120 CFM (2 for use, 1 as a spare) and 2x power cords
latch & cement board	\$25.00	gate latch, cement board
OSB sheets	\$0.00	scrap OSB sheets left over from garage construction
framing boards	\$0.00	scrap pressure treated 2 x 4's left over from garage construction
fasteners	\$0.00	nails and screws left over from other projects
spare muffin fans	\$31.97	2x muffin fans 115 VAC 4-5/8" x 1-1/2" Sleeve Bearing 100 CFM
<b>Total</b>	<b>\$108.47</b>	



# Expense Report

<b>System Component</b>	Inverter and Batteries
<b>Start Date</b>	Jul 22, 2009
<b>Completion Date</b>	TBD

Item	Cost	Description
diagram books	\$28.00	2x solar/batter/off grid how to books --- very rudimentary, not useful
main line	\$0.00	4/0 welding copper cable for span from bus bars to inverter
battery cables	\$100.00	50 feet of #2 welding copper cable
system cut off	\$21.23	marine 350 amp cut off switch for main line
bus bars	\$30.00	stock copper, two long bars that needed to be cut and drilled
cable lugs	\$55.00	no. 4/0 x8 lugs, no. 2 x30 lugs, Lenco Swedg-on 840 crimp tool
dielectric grease	\$12.00	dielectric grease for making cables (displace air inside lugs)
battery box	\$80.00	5 foot length of 3/4" blue label copper pipe 3 foot length of 1-1/2" blue label copper pipe copper elbow for ea. pipe 4 x 8' sheet of 11/32 ply wood two 8 foot 2 x 2" pine boards one 6 foot 1 x 6" pine board one 8 foot 2 x 4" pine board *medium black zip ties *foam stripping with one side adhesive *pop rivets *sheet metal screw *several sizes of wood screws from 1-1/2" to 3" *silicone adhesive  *left over from other projects
system panel	\$196.77	Xantrex MS series remote control panel (186.82) and S&H
ethernet	\$60.17	cat5e network cables and connectors for inverter control module bridge (weatherproof, direct burial, solid wire, gel filled core, EMF/radio shielded)
ethernet	\$5.00	3 foot network cable to span ethernet jack in garage to inverter
DC fuse	\$100.63	class T fuse block (56.99), class T fuse 350 amp (31.99), and S&H
14 batteries	\$1,190.00	220 Ah 6V Johnson Control wet cell lead acid batteries
inverter	\$1,845.82	Xantrex MS 3000 inverter
<b>Total</b>	<b>\$3,724.62</b>	



# Expense Report

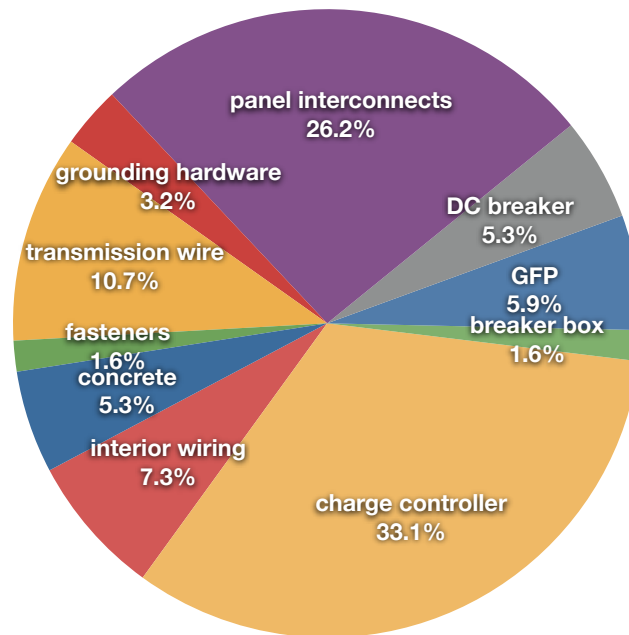
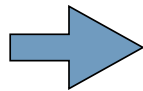
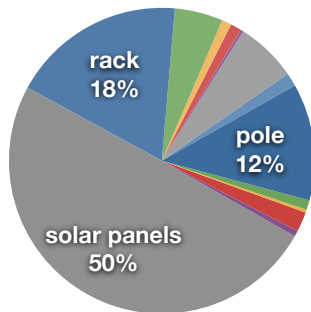
<b>System Component</b>	Solar
<b>Start Date</b>	Jun 4, 2010
<b>Completion Date</b>	Jun 19, 2010

Item	Cost	Description
pole	\$600.00	21' L 6" dia. schedule 40 pole + paint
concrete	\$50.00	cement and gravel
fasteners	\$15.00	electrical splicers, zip ties, shrink tube
transmission wire	\$101.28	80' #2 solar wiring
grounding hardware	\$30.00	solar grounding wire + rod + lug
solar panels	\$2,413.53	6x kyocera KD135GX-LPU 135 watt 12V panels (2,160.00) S&H for solar panels (253.53)
rack	\$895.00	Ironridge 6 panel solar rack + S&H
panel interconnects	\$247.50	M-M-F 3x multi-branch MC4 connectors (78.00) F-F-M 3x multi-branch MC4 connectors (78.00) 10 foot MC4 extender cable male/female (82.50) MC4 disconnect tool (9.00)
DC breaker	\$49.99	70 amp DC marine circuit breaker
GFP	\$56.00	Outback Power 80 Amp single pole PV ground-fault detector interrupter
breaker box	\$15.00	breaker box
charge controller	\$312.88	Xantrex C60 (176.45) Xantrex battery temperature sensor 15 foot cable (27.55) Xantrex digital meter for C series charge controllers (78.95) S&H for charge controller/digital meter (29.93)
interior wiring	\$68.73	6x copper lug no. 4/0 (11.70) 20x copper lug no. 2 through 6 (14.40) 20 feet #2 welding cable (30.80) S&H for above lugs and cable (11.83)

**Total** **\$4,854.91**

**Components (20% of Total System)**

**Total System**

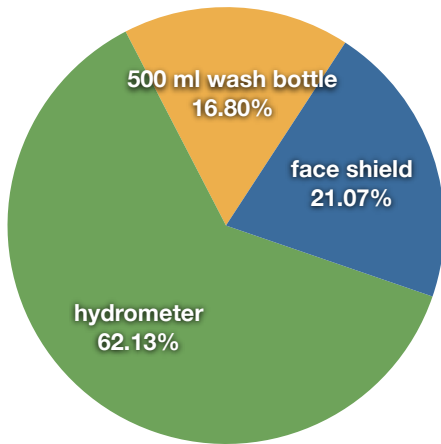


# Expense Report

<b>System Component</b>	Maintenance
<b>Start Date</b>	Jul 4, 2009
<b>Completion Date</b>	N/A

Item	Cost	Description
face shield	\$15.00	MSA Safety Works 817893 adjustable faceshield
hydrometer	\$44.23	Freas HD98C Precision Hydrometer Set
500 ml wash bottle	\$11.96	Fisher Scientific Company L.L.C. safety distilled water labeled 500 mL polyethylene wash bottles
baking soda		acid neutralizer
latex gloves		100 count box of latex gloves
distilled water		1 gallon
vaseline		for coating battery terminals and exposed copper components

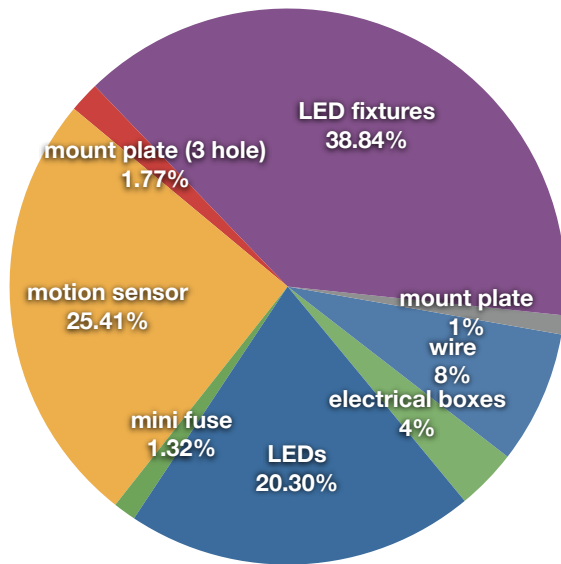
**Total** **\$71.19**



# Expense Report

<b>System Component</b>	LED lighting
<b>Start Date</b>	Aug 20, 2010
<b>Completion Date</b>	Aug 21, 2010

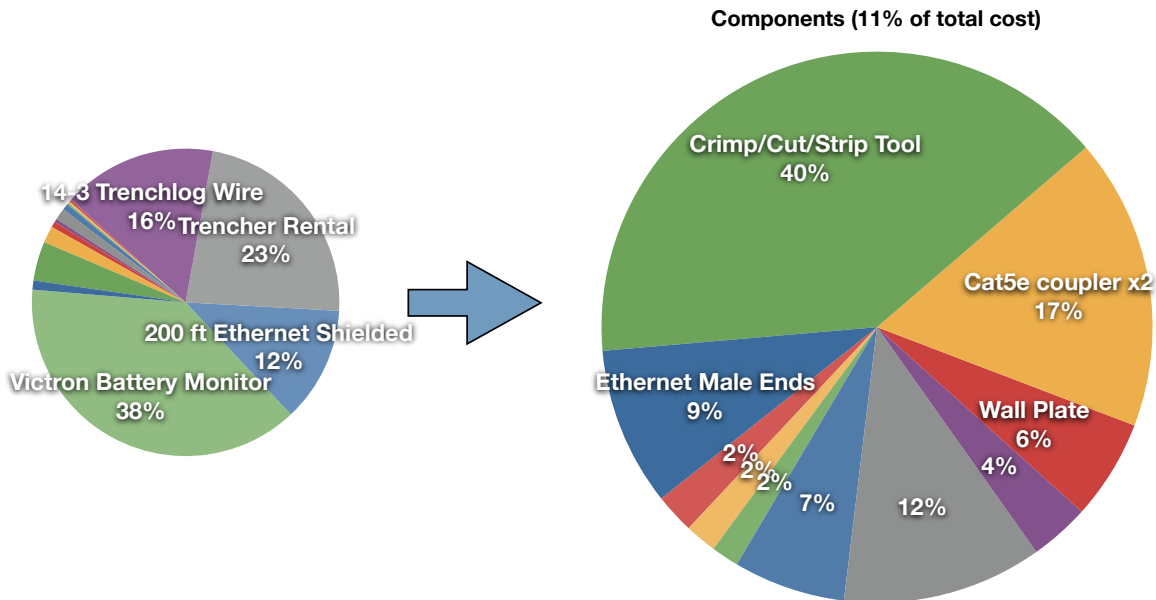
Item	Cost	Description
LEDs	\$92.00	4x brightest SMD MR16 330 lumen LED (white) track light bulb
mini fuse	\$6.00	little fuse smart glow in-line fuse holder for ATO blade fuse
motion sensor	\$115.13	stealth 110 low voltage 96W 12V bronze motion sensor
mount plate (3 hole)	\$8.00	2x weatherproof rectangle 1 hole bronze cover
LED fixtures	\$176.00	4x floodlights - low voltage 50W MR15 bronze
mount plate	\$5.01	weatherproof rectangle 3 hole bronze cover
wire	\$34.99	SPT-1 18 gauge wire Coleman Cable
electrical boxes	\$16.00	2x weatherproof single outlet 3 hole bronze box
<b>Total</b>	<b>\$453.13</b>	



# Expense Report

<b>System Component</b>	Battery Monitor
<b>Start Date</b>	Jul 28, 2011
<b>Completion Date</b>	Jul 29, 2011

Item	Cost	Description
Ethernet Male Ends	\$3.95	Belkin R6G088-10 RJ45 Plug (10-Pack)
Crimp/Cut/Strip Tool	\$17.00	TRENDnet RJ-11/RJ-45 Crimp/Cut/Strip Tool TC-CT68 (Blue)
Cat5e coupler x2	\$7.26	CAT5E, RJ45 Inline Keystone Coupler, White Colo
Wall Plate	\$2.49	2 Hole for keystone Jack Wall Plate, White
Switch Box	\$1.49	for wall plate (recessed)
LB x 2	\$4.98	used to run wire from exterior wall into ground
10' 1-1/4 Outdoor PVC	\$2.79	used to run wire from exterior wall into ground
Ethernet Cat5e Cable 1ft	\$0.69	Patch Cable for in garage (from outlet to BMV 600 shunt)
Ethernet Cat5e Cable 2ft	\$0.79	extra length (if needed)
Ethernet Cat5e Cable 3ft	\$0.99	extra length (if needed)
14-3 Trenchlog Wire	\$67.00	for future 12V system expansion
Trencher Rental	\$95.00	Torro walk behind 4' bar tracked trencher
200 ft Ethernet Shielded	\$49.99	Cat5e Bulk Shielded Outdoor Direct Burial Cable 200Ft
Victron Battery Monitor	\$158.10	Victron Energy Precision Battery Monitor BMV-600S
<b>Total</b>	<b>\$412.52</b>	



# Expense Report

System Component	Totals
Start Date	N/A
Completion Date	N/A

Item	Cost	Description
Inverter and Batteries	\$3,724.62	battery enclosure fasteners not accounted for (used on hand supplies)
Generator Enclosure	\$108.47	wood left over from garage construction not accounted for (scrap wood)
Solar	\$4,854.91	
LED Lighting	\$453.13	
Battery Monitor	\$412.52	
Maintenance	\$71.19	common household items not accounted for (baking soda)

**Total** **\$9,624.84**

