

Project: UIUC South Campus Wind Turbine Project				Classification: ELECTRICAL UTILITY ESTIMATE				Job Number: 05-3974				
Location: Champaign/Urbana				Engineer: ITG - Henneman Engineering, Inc.				Date: 12/14/2007				
Take Off by: Tracy Wilson								Checked by: KFM				
		Means Line		Material		Labor		Equipment		Subcontract		Line Item
Description		Number	Quantity	Unit	Cost	Total	Cost	Total	Cost	Total	Cost	Total
15kV cables												
2/0 triplexed			500	LF	\$23.72	11,860	\$5.61	\$2,805.00				\$14,665.00
#2 triplexed			4000	LF	\$16.15	64,600	\$5.04	\$20,160.00				\$84,760.00
Cable splices		16120-220-0210	1	EA	\$112.00	112	\$105.00	\$105.00				\$217.00
Cable terminations		16120-240-1400	12	EA	\$174.00	2,088	\$60.00	\$720.00				\$2,808.00
Fiber Optic Cable												
Single Mode fiber optic cable 24 cond			7200	ft	\$0.60	4,320	\$2.00	\$14,400.00				\$18,720.00
Fiber terminations			96	ft	\$17.00	1,632	\$14.00	\$1,344.00				\$2,976.00
Trenching and backfilling			6700	ft			\$1.50	\$10,050.00	\$0.50	\$3,350.00		\$13,400.00
Network Equipment												
			1	ea			\$3,000.00	\$3,000.00				\$3,000.00
19" rack			1	ea	\$1,000.00	1,000						\$1,000.00
Patch panel			1	ea	\$1,000.00	1,000						\$1,000.00
Switch			1	ea	\$2,500.00	2,500						\$2,500.00
Building												
12' x 20' metal bldg, including excavation & concrete			1	LOT	\$12,000.00	12,000	\$7,800.00	\$7,800.00				\$19,800.00
Switchgear, S & C metal enclosed SG, 13.8kV												
non-fused incoming switch, 3 fused feeder switches			1	ea	\$39,000.00	\$39,000.00	\$4,375.00	\$4,375.00	\$1,655.00	\$1,655.00		\$45,030.00
Fixtures, lamps, conduit/wiring												
Industrial fluorescent		16510-440-3200	4	ea	\$74.50	\$298.00	\$67.00	\$268.00				\$566.00
Wallpack		16520-300-1180	5	ea	\$255.00	\$1,275.00	\$84.00	\$420.00				\$1,695.00
Wiring Devices w/ conduit/wiring												
Receptacles		D5020-125-0520	4	ea	\$34.50	\$138.00	\$165.00	\$660.00				\$798.00
GFCI Receptacles		D5020-125-0600	1	ea	\$65.50	\$65.50	\$171.00	\$171.00				\$236.50
Switches		D5020-125-0760	2	ea	\$41.00	\$82.00	\$174.00	\$348.00				\$430.00
Branch panelboards - 120/240V												
Panel - 100A, 12 ctk		16440-500-0300	1	ea	\$216.00	\$216.00	\$280.00	\$280.00				\$496.00
Grounding												
4/0 KCMIL wiring		16060-800-1000	130	lf	\$1.84	\$239.20	\$1.18	\$153.40				\$392.60
ground rods		16060-800-0090	8	ea	\$22.00	\$176.00	\$73.00	\$584.00				\$760.00
exothermic weld		16060-800-2730	12	ea	\$9.15	\$109.80	\$48.00	\$576.00				\$685.80
Oil-filled pad mount Transformer												
2000 kVA 13.8KV PRI to 600V Y SEC.			1	ea	\$49,786.00	\$49,786.00	\$4,200.00	\$4,200.00	\$1,000.00	\$1,000.00		\$54,986.00

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Concrete pad, excavation & concrete		1	ea	\$1,600.00	\$1,600.00	\$1,200.00	\$1,200.00					\$2,800.00
Mechanical												
3/4 ton wall mount HVAC		1	lot	\$2,000.00	\$2,000.00	\$1,000.00	\$1,000.00					\$3,000.00
Subtotals					196,098		74,619		6,005			\$276,722
Materials Sales Tax												
Handling Overhead & Profit Mark-up												
Material		15.00%			29,415				901			
Labor		15.00%					11,193					
Total					225,512		85,812		6,906			\$318,230
City Modifier from Means												
Material Modifier		97.00%			218,747				6,699			
Labor Modifier		101.10%					86,756					
Subtotal					218,747		86,756		6,699			\$312,202
Contingency		10.00%										\$31,220
Engineering		12.00%										\$41,211
Total												\$384,632