

#### **Electric Demand (kW)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	-	-	-	-	-	-	-	-	-	-	-	-	-
Heat Reject.	-	-	-	-	-	-	-	-	-	-	-	-	-
Refrigeration	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Heat	-	-	-	-	-	-	-	-	-	-	-	-	-
HP Supp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Hot Water	-	-	-	-	-	-	-	-	-	-	-	-	-
Vent. Fans	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	1,259.7
Pumps & Aux.	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	293.7
Ext. Usage	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Equip.	35.3	35.3	35.6	35.6	35.6	35.6	17.3	17.3	35.6	35.6	35.6	35.6	389.6
Task Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Lights	165.7	165.7	168.2	168.2	168.2	168.2	168.9	168.9	168.2	168.2	168.2	168.2	2,015.2
Total <	330.5	330.5	333.2	333.2	333.2	333.2	315.7	315.7	333.2	333.2	333.2	333.2	3,958.2

### Steam Demand (Btu/h x000)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	-	-	-	-	-	-	-	-	-	-	-	-	-
Heat Reject.	-	-	-	-	-	-	-	-	-	-	-	-	-
Refrigeration	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Heat	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	7,200.0
HP Supp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Hot Water	-	-	-	-	-	-	-	-	-	-	-	-	-
Vent. Fans	-	-	-	-	-	-	-	-	-	-	-	-	-
Pumps & Aux.	-	-	-	-	-	-	-	-	-	-	-	-	-
Ext. Usage	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Equip.	-	-	-	-	-	-	-	-	-	-	-	-	-
Task Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	7,200.0

The monthly peak demand is peak demand for that month and does not show the peak demand (My climate zone is zone#3 (17-July to 19-July)). The annual peak demand is not definately the sum of the monthly peak demand values.

Project: V50-EEM Runs Run Date/Time: 10/25/11 @ 10:50

# **Annual Energy**

and Demand (pg 1 of 2)		Ann. Source Energy		Annual Site Energy		Lighting	HVAC Energy				Peak
aı	id Demand (pg I of 2)	Total Mbtu	EUI kBtu/sf/yr	Elect kWh	Nat Gas Therms	Electric kWh	Electric kWh	Nat Gas Therms	Total Mbtu	Elect kW	Cooling Tons
Annu	al Energy USE or DEMAND									1	
0	Base Design	3,839	207.61	349,678	2,589	119,453	183,743	2,589	886	97	32
1	0+EMS	2,840	153.59	265,273	1,241	119,453	99,339	1,241	463	100	35
2	1+Cooling Tower	2,834	153.26	264,670	1,241	119,453	98,736	1,241	461	99	35
3	2+High Eff DX Units	2,808	151.83	262,092	1,241	119,453	96,158	1,241	452	97	35
4	0+Ltg Reduction	2,744	148.38	234,585	3,419	45,748	142,356	3,419	828	66	27
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## Is electrical kW the DEER peak demand?

#### Incremental SAVINGS (values are relative to previous measure (% savings are relative to base case use), negative entries indicate increased use)

			•	` -		,, ,			•		
1	0+EMS	999	54.02 (26%)	84,404 (24%)	1,347 (52%)	0 (0%)	84,404 (46%)	1,347 (52%)	423 (48%)	-3 (-3%)	-3 (-9%)
2	1+Cooling Tower	6	0.33 (0%)	603 (0%)	0 (0%)	0 (0%)	603 (0%)	0 (0%)	2 (0%)	1 (1%)	0 (0%)
3	2+High Eff DX Units	26	1.43 (1%)	2,578 (1%)	0 (0%)	0 (0%)	2,578 (1%)	0 (0%)	9 (1%)	2 (2%)	0 (0%)
4	0+Ltg Reduction	1,095	59.24 (29%)	115,093 (33%)	-830 (-32%)	73,705 (62%)	41,386 (23%)	-830 (-32%)	58 (7%)	31 (32%)	4 (14%)

## Cumulative SAVINGS (values (and % savings) are relative to the Base Case, negative entries indicate increased use)

		-	_	-		_						
1	0+EMS		999	54.02 (26%)	84,404 (24%)	1,347 (52%)	0 (0%)	84,404 (46%)	1,347 (52%)	423 (48%)	-3 (-3%)	-3 (-9%)
2	1+Cooling Tower		1,005	54.35 (26%)	85,007 (24%)	1,347 (52%)	0 (0%)	85,007 (46%)	1,347 (52%)	425 (48%)	-2 (-2%)	-3 (-9%)
3	2+High Eff DX Units		1,032	55.78 (27%)	87,585 (25%)	1,347 (52%)	0 (0%)	87,585 (48%)	1,347 (52%)	434 (49%)	-1 (-1%)	-3 (-9%)
4	0+Ltg Reduction		1,095	59.24 (29%)	115,093 (33%)	-830 (-32%)	73,705 (62%)	41,386 (23%)	-830 (-32%)	58 (7%)	31 (32%)	4 (14%)

Project: V50-EEM Runs Run Date/Time: 10/25/11 @ 10:50

# Annual Costs (pg 2 of 2)

		-		Annual Utility Co		Ince	<u>LCC</u>		
Annı	ual COST	Electric kWh(\$)	Electric kW(\$)	Electric Total(\$)	Nat Gas Total(\$)	Total (\$)	Owner (\$)	Design Team (\$)	Total (PV\$)
0	Base Design	\$ 48,077	\$ 4,516	\$ 53,494	\$ 1,593	\$ 55,087			\$ 329,560
1	0+EMS	\$ 36,663	\$ 4,611	\$ 42,173	\$ 839	\$ 43,012			\$ 256,899
2	1+Cooling Tower	\$ 36,569	\$ 4,585	\$ 42,055	\$ 839	\$ 42,894			\$ 256,197
3	2+High Eff DX Units	\$ 36,183	\$ 4,513	\$ 41,596	\$ 839	\$ 42,435			\$ 253,465
4	0+Ltg Reduction	\$ 32,367	\$ 2,954	\$ 36,221	\$ 2,053	\$ 38,274			\$ 229,961

Incre	emental SAVINGS	(values are relative to previou	s measure (% sa	vings are relative	to base case cos	st), negative entries in	ndicate increased cost)	
1	0+EMS	\$ 11,414	\$ -95	\$ 11,321	\$ 754	\$ 12,075		\$ 72,661
2	1+Cooling Tower	\$ 94	\$ 26	\$ 118	\$ 0	\$ 118		\$ 702
3	2+High Eff DX Units	\$ 386	\$ 72	\$ 459	\$ 0	\$ 459		\$ 2,732
4	0+Ltg Reduction	\$ 15,710	\$ 1,562	\$ 17,273	\$ -460	\$ 16,813		\$ 23,504

Cumu	ılative SAVINGS	(values (and % savings) are re	lative to the Ba	se Case, negative e	entries indicate i	increased cost)	
1	0+EMS	\$ 11,414	\$ -95	\$ 11,321	\$ 754	\$ 12,075	\$ 72,661
2	1+Cooling Tower	\$ 11,508	\$ -69	\$ 11,439	\$ 754	\$ 12,193	\$ 73,363
3	2+High Eff DX Units	\$ 11,894	\$ 3	\$ 11,898	\$ 754	\$ 12,652	\$ 76,095
4	0+Ltg Reduction	\$ 15,710	\$ 1,562	\$ 17,273	\$ -460	\$ 16,813	\$ 99,599