

EQUIPMENT ENERGY CONSUMPTION

Alternative: 1 LRAFB 1090

Equipment - Utility		----- Monthly Consumption -----												
		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Lights		24,828.3	22,444.4	25,001.0	23,936.2	25,414.7	25,911.0	24,241.9	25,001.0	23,936.2	25,414.6	24,241.9	23,936.2	286,699.7
	Electric (kWh)	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
	Peak (kW)	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
MISC LD		64,442.0	58,205.7	64,442.0	62,363.2	64,442.0	62,363.2	64,441.9	64,442.0	62,363.2	64,441.9	62,363.2	64,441.9	788,752.1
	Electric (kWh)	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
	Peak (kW)	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
Cooling Coil Condensate		0.1	0.1	0.1	3.9	10.0	15.7	21.2	19.0	10.3	1.2	0.9	0.0	82.5
	Recoverable Water (1000gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
	Peak (1000gal/hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

Cpl 1: Cooling plant - 001 [Max block coil load based on System Sim=190.0 tons]

Water-cooled chiller - 001 (33%) [Clg Nominal Capacity/F.L.Rate=62.72 tons / 43.90 kW] (Cooling Equipment)													
Electric (kWh)	7,248.4	5,881.9	10,478.2	14,707.8	17,401.2	21,250.1	23,655.6	21,959.3	17,714.8	12,124.4	10,802.9	7,289.5	177,275.0
Peak (kW)	32.0	27.3	34.5	37.6	39.1	40.7	44.3	42.2	40.3	35.7	35.4	30.7	44.3
Eq5100 - Cooling tower													
Electric (kWh)	2,083.3	1,890.7	2,852.4	3,593.6	3,692.7	3,673.6	3,692.7	3,673.6	3,316.4	2,950.4	2,302.8	37,193.9	
Peak (kW)	5.0	4.6	6.9	8.9	9.0	9.0	9.0	9.0	8.0	6.9	5.0	6.9	
Eq5100 - Cooling tower													
Recoverable Water (1000gal)	43.2	40.3	63.3	95.4	111.2	128.2	137.4	131.6	111.8	79.9	70.3	43.6	1,053.1
Peak (1000gal/hr)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Eq5001 - Cnst vol chill water pump (Misc Accessory Equipment)													
Electric (kWh)	656.8	593.2	856.8	1,056.8	1,056.8	1,056.8	1,056.8	1,056.8	936.8	656.8	516.8	7,732.7	
Peak (kW)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
Eq5010 - Cnst vol cnd water pump (Misc Accessory Equipment)													
Electric (kWh)	2,372.7	2,143.1	2,372.7	2,296.2	2,372.7	2,296.2	2,372.7	2,296.2	2,372.7	2,296.2	2,372.7	2,296.2	27,896.5
Peak (kW)	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Eq5003 - Var vol chill water pump (Misc Accessory Equipment)													
Electric (kWh)	298.8	275.6	479.8	878.9	1,804.4	2,346.0	2,870.6	2,439.2	1,451.5	627.4	454.1	298.8	14,021.8
Peak (kW)	1.5	1.4	2.5	8.2	8.2	8.6	8.9	8.8	3.7	1.9	1.4	1.5	8.8
Water-cooled chiller - 002 (33%) [Clg Nominal Capacity/F.L.Rate=62.72 tons / 43.90 kW] (Cooling Equipment)													
Electric (kWh)	0.0	0.0	778.4	4,440.7	10,916.2	14,816.2	17,340.1	15,439.5	10,572.9	2,198.5	0.0	0.0	76,007.1
Peak (kW)	0.0	0.0	17.3	25.4	36.0	39.1	40.7	44.3	42.2	40.3	23.3	22.5	44.3
Eq5100 - Cooling tower													
Electric (kWh)	0.0	0.0	228.3	943.0	2,020.1	2,362.5	2,820.6	2,462.3	1,895.1	546.0	0.0	0.0	13,008.9
Peak (kW)	3.9	3.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	5.0
Eq5100 - Cooling tower													
Recoverable Water (1000gal)	0.0	0.0	5.4	29.5	65.2	88.7	99.3	90.6	65.9	15.2	0.0	0.0	463.8
Peak (1000gal/hr)	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.2
Eq5001 - Cnst vol chill water pump (Misc Accessory Equipment)													
Electric (kWh)	0.0	0.0	40.6	167.7	359.3	420.2	400.1	427.2	335.4	97.1	0.0	0.0	2,319.0
Peak (kW)	0.0	0.0	0.9	3.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.9
Eq5010 - Cnst vol cnd water pump (Misc Accessory Equipment)													
Electric (kWh)	0.0	0.0	140.7	605.9	1,296.0	1,518.0	1,063.8	1,543.5	1,211.9	308.0	0.0	0.0	8,359.0
Peak (kW)	0.0	0.0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	0.0	0.0	3.2
Water-cooled chiller - 003 (33%) [Clg Nominal Capacity/F.L.Rate=62.72 tons / 43.90 kW] (Cooling Equipment)													
Electric (kWh)	0.0	0.0	0.0	1,684.5	3,987.1	7,191.1	4,341.4	498.8	0.0	0.0	0.0	0.0	17,593.9
Peak (kW)	0.0	0.0	0.0	24.1	30.9	38.2	44.3	38.9	23.7	0.0	0.0	0.0	44.3
Eq5100 - Cooling tower													
Electric (kWh)	0.0	0.0	0.0	327.6	655.2	1,057.1	984.9	99.3	0.0	0.0	0.0	0.0	2,834.1
Peak (kW)	0.0	0.0	0.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	5.0
Eq5100 - Cooling tower													
Recoverable Water (1000gal)	0.0	0.0	0.0	0.0	0.0	10.6	23.8	40.8	25.5	3.2	0.0	0.0	103.9
Peak (1000gal/hr)	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
Eq5001 - Cnst vol chill water pump (Misc Accessory Equipment)													
Electric (kWh)	0.0	0.0	0.0	0.0	0.0	56.3	110.5	199.8	121.8	17.7	0.0	0.0	504.0
Peak (kW)	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.9
Eq5010 - Cnst vol cnd water pump (Misc Accessory Equipment)													
Electric (kWh)	0.0	0.0	0.0	0.0	0.0	210.5	421.0	695.7	440.1	63.9	0.0	0.0	1,821.0
Peak (kW)	0.0	0.0	0.0	0.0	0.0	3.2	3.2	3.2	3.2	0.0	0.0	0.0	3.2
Hpl 1: Heating plant - 002 [Sum of dsn coil capacities=1,224 mbh]													
Boiler - 001 [Nominal Capacity/F.L.Rate=1,224 mbh / 15.70 Therms] (Heating Equipment)													
Gas (therms)	1,408.9	1,167.0	491.6	8.7	0.3	0.0	0.0	0.1	1.1	113.0	359.4	1,092.3	4,980.4
Peak (therms/hr)	7.0	6.2	2.5	0.5	0.1	0.0	0.0	0.0	0.2	1.2	19.0	4.2	7.0
Eq5020 - Heating water circ pump (Misc Accessory Equipment)													
Electric (kWh)	270.0	245.8	172.4	25.4	1.7	0.8	0.0	1.7	9.7	119.1	170.2	272.1	1,291.9
Peak (kW)	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4
Boiler forced draft fan (Misc Accessory Equipment)													
Electric (kWh)	782.5	706.6	499.6	73.5	4.9	0.0	0.0	4.9	28.2	345.3	510.7	788.6	3,744.8
Peak (kW)	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Cntl panel & interlocks - 0.5 KW (Misc Accessory Equipment)													
Electric (kWh)	315.5	289.5	204.9	39.0	2.0	0.0	0.0	2.0	11.5	141.0	208.5	322.0	1,529.0
Peak (kW)	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5
Sys 1: AHU-II													
AF Centrifugal const vol [DsnAirflow/F.L.Rate=5,818 cfm / 5.17 kW] (Main Clg Fan)													
Electric (kWh)	1,005.9	1,455.3	2,128.4	2,500.0	2,599.8	2,802.7	3,003.1	2,899.4	2,935.3	2,821.1	1,893.0	1,504.8	28,769.9
Peak (kW)	5.2	6.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
AF Centrifugal const vol [DsnAirflow/F.L.Rate=8,017 cfm / 3.34 kW] (Main Return Fan)													
Electric (kWh)	1,035.7	941.3	1,371.5	1,549.0	1,519.5	1,799.8	1,911.1	1,839.8	1,866.4	1,691.3	1,158.9	1,012.0	18,394.9
Peak (kW)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Sys 2: AHU-III													
AF Centrifugal const vol [DsnAirflow/F.L.Rate=11,356 cfm / 9.21 kW] (Main Clg Fan)													
Electric (kWh)	4,785.5	4,265.6	3,822.4	3,417.4	3,885.0	4,128.9	4,369.0	4,177.5	3,591.9	3,482.1	3,348.3	4,063.4	47,738.9
Peak (kW)	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
AF Centrifugal const vol [DsnAirflow/F.L.Rate=11,764 cfm / 6.80 kW] (Main Return Fan)													
Electric (kWh)	3,477.6	3,106.0	2,657.6	2,511.9	2,882.2	3,043.4	3,164.8	3,047.7	2,620.0	2,526.4	2,433.8	3,384.2	34,881.7
Peak (kW)	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Sys 3: AHU-V													
AF Centrifugal const vol [DsnAirflow/F.L.Rate=24,135 cfm / 23.60 kW] (Main Clg Fan)													
Electric (kWh)	17,557.5	15,858.4	17,557.5	16,991.2	17,557.5	16,991.2	17,557.5	16,991.2	17,557.5	16,991.2	17,557.5	20,726.9	
Peak (kW)	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	
AF Centrifugal const vol [DsnAirflow/F.L.Rate=25,017 cfm / 14.18 kW] (Main Return Fan)													
Electric (kWh)	10,020.0	9,341.1	10,301.0	10,012.4	10,377.0	10,065.2	10,330.5	10,330.5	9,991.2	10,279.8	9,946.3	10,267.4	
Peak (kW)	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	
Sys 4: S-4													
AF Centrifugal const vol [DsnAirflow/F.L.Rate=15,508 cfm / 14.47 kW] (Main Clg Fan)													
Electric (kWh)	5,900.3	4,916.3	6,961.8	8,745.2	8,521.7	8,249.3	8,893.4	8,428.1	8,045.5	8,095.5	6,758.9	6,532.0	89,726.7
Peak (kW)	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	
AF Centrifugal const vol [DsnAirflow/F.L.Rate=16,051 cfm / 9.41 kW] (Main Return Fan)													
Electric (kWh)	2,362.0	2,169.3	3,059.9	3,814.1	3,913.3	3,630.1	3,762.9	3,679.2	3,769.1	3,771.9	2,893.8	2,437.9	39,262.1
Peak (kW)	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	
Sys 5: RTU-1													
FC Centrifugal const vol [DsnAirflow/F.L.Rate=813.0 cfm / 0.43 kW] (Main Clg Fan)													
Electric (kWh)	191.2	191.2	191.2	191.2	191.2	142.0	141.9	144.7	126.7	119.9	103.1	97.4	1,449.0
Peak (kW)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	