PROJECTED ELECTRICAL POWER REQUIREMENTS - SUMMER LOADS ONLY

	NPP CB	*	Summer Loads	FY06 Proj Avg KVA	FY06 Proj Peak KVA	FY07 Proj Ave Elect KVA	FY07 Proj Peak KVA	FY08 Proj Avg KVA	FY08 Proj Peak KVA	FYO9 Proj Avg KVA	FYO9 Proj Peak KVA	FY10 Proj Avg KVA	FY10 Proj Peak KVA	FY11 Proj Avg KVA	FY11 Proj Peak KVA
SCIENCE	4	1	ARO	37.6	40.8	37.6	40.8	37.6	40.8	37.6	40.8	37.6	40.8	37.6	40.8
	9	2	AST/RO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	9	3	MAPO/QUAD/AMANDA	64.7	64.7	39.0	47.0	39.0	47.0	39.0	47.0	39.0	47.0	39.0	47.0
	9	4	DSL/BISCEP	19.8	25.7	19.8	42.0	19.8	42.0	19.8	42.0	19.8	42.0	19.8	42.0
	10	5	B2 Science per Vlad	12.0	12.9	6.4	9.6	6.4	9.6	6.4	9.6	6.4	9.6	6.4	9.6
	16	6	Ballon Inflation Tower	3.8	6.1	3.8	6.1	3.8	6.1	3.8	6.1	3.8	6.1	3.8	6.1
	16	7	Cryogen Storage	32.7	45.0	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	9	8	SPRESO	5.5	6.0	5.5	6.0	5.5	6.0	5.5	6.0	5.5	6.0	5.5	6.0
	9	9	SPASE 2	8.0	12.5	8.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	-	10	New Cryo (Future)	29.6	30.0	85.0	108.0	85.0	108.0	85.0	108.0	85.0	108.0	85.0	108.0
	9	11	IceCube Lab	12.4	12.6	67.8	89.1	75.6	99.8	77.8	109.1	82.2	119.8	83.3	123.8
	9	12	SPT			68.0	77.0	81.0	112.0	81.0	112.0	81.0	112.0	81.0	112.0
	9	13	Dark Sector Hub - Bldg 61	3.2	4.3	3.2	4.3	3.2	4.3	3.2	4.3	3.2	4.3	3.2	4.3
			Sub Total kVA	**229.3**	**260.7**	**345.6**	**444.5**	**356.8**	**475.6**	**359.1**	**485.0**	**363.5**	**495.6**	**364.6**	**499.6**
			KW	**206.3**	**234.6**	**311.0**	**400.0**	**321.2**	**428.1**	**323.2**	**436.5**	**327.2**	**446.1**	**328.2**	**449.7**
OPERATIONS	-	14	Logistics Facility	0.0	0.0	0.0	0.0	20.0	60.0	20.0	60.0	20.0	60.0	20.0	60.0
	5	15	NPP MCCA	21.5	22.4	21.5	22.4	21.5	22.4	21.5	22.4	21.5	22.4	21.5	22.4
	2	16	NPP 0-103HA	22.0	29.4	22.0	29.4	22.0	29.4	22.0	29.4	22.0	29.4	22.0	29.4
	10	17	Elevated Station Pod B	72.3	84.5	72.3	84.5	72.3	84.5	72.3	84.5	72.3	84.5	72.3	84.5
	2	18	NPP 0-103HC-Genset Htrs	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	8	19	Elevated Station Pod A	100.5	135.5	100.5	135.5	100.5	135.5	100.5	135.5	100.5	135.5	100.5	135.5
	12	20	RF Building	28.2	30.1	28.2	30.1	28.2	30.1	28.2	30.1	28.2	30.1	28.2	30.1
	6	21	NPP MCCB	8.2	9.3	8.2	9.3	8.2	9.3	8.2	9.3	8.2	9.3	8.2	9.3
	7	22	Bldg 101 Garage/Shops	24.3	39.5	24.3	39.5	24.3	39.5	24.3	39.5	24.3	39.5	24.3	39.5
	3	23	Rodwell/Tunnel 103 HB	64.8	68.6	64.8	68.6	64.8	68.6	64.8	68.6	64.8	68.6	64.8	68.6
	14	24	Fuel Arch	31.1	40.6	31.1	40.6	12.9	14.0	12.9	14.0	12.9	14.0	12.9	14.0
	9	25	Summer/constn Camp	78.3	97.4	78.3	97.8	78.3	97.8	78.3	97.8	78.3	97.8	78.3	97.8
	15	26	Cargo Arch	16.4	30.2	16.4	30.2	8.0	15.0	8.0	15.0	8.0	15.0	8.0	15.0
	16	27	Old Pwr Plant Distribution	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Sub Total kVA	**453.8**	**570.5**	**459.4**	**574.3**	**452.8**	**592.5**	**452.8**	**592.5**	**452.8**	**592.5**	**452.8**	**592.5**
			kW	**408.4**	**513.5**	**413.5**	**516.8**	**407.5**	**533.3**	**407.5**	**533.3**	**407.5**	**533.3**	**407.5**	**533.3**
CONSTR	10	28	Counting House	5.3	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10	29	Hard Surface Runway	0.0	0.0	0.0	0.0	0.0	0.0	11.0	14.0	11.0	14.0	14.0	20.0
	8	30	Logistics Building Const.	0.0	0.0	6.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	9	31	Rodwell #3 Constn	0.0	0.0	38.6	38.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	13	32	Cryo Building Const.	1.9	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10	33	SPT	1.9	4.4	1.9	4.4	1.9	4.4	1.9	4.4	1.9	4.4	1.9	4.4
	4 & 9	34	Elevated Station Siding	0.0	0.0	4.8	11.0	4.8	11.0	4.8	11.0	4.8	11.0	4.8	11.0
		35	Toss 1&2	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
			Sub Total kVA	**9.1**	**20.8**	**51.3**	**74.0**	**6.7**	**15.4**	**17.7**	**29.4**	**17.7**	**29.4**	**20.7**	**35.4**
			Sub Total kW	**8.2**	**18.7**	**46.2**	**66.6**	**6.0**	**13.9**	**15.9**	**26.5**	**15.9**	**26.5**	**18.6**	**31.9**
			NPP Grand Total Load kVA	**692**	**852**	**856**	**1093**	**816**	**1084**	**830**	**1107**	**834**	**1118**	**838**	**1128**
			NPP Grand Total Load kW	**623**	**767**	**771**	**983**	**735**	**975**	**747**	**996**	**751**	**1006**	**754**	**1015**
			Ttl KW W/10% Est Contingency	**692**	**852**	**856**	**1093**	**816**	**1084**	**830**	**1107**	**834**	**1118**	**838**	**1128**
			Actual totals 1-28-06	512	698										
			Ratio forecast to actual	121.7%	109.9%										

Note: Very few actual readings in 1-28 time frame to calibrate to actual station loads. Where no readings, used winter FY06 data as placeholder.

		FY07	FY07
	Load changes from Tiger Team, but not yet shown on spreadsheet above pending final approval and implementation:		Average
	Other Tiger Team changes, such as double counting or errors, have been implemented into spreadsheet above.		kW Impact
36	SuperDarn, if approved, will require est. 65 kW peak start FY09. Peak est per Dave Scheuerman, UPSC. (No FY07 impact) Constn not included.	0	0
	Electronic ballast retrofit in winter FY07 saves 7.5 kW estimated for following (FY07) summer and beyond.	-8.30	-7.47
	Use HX for Helium re-liquifiers in new Cryo, save 4 kW each start in FY07 if implemented. 12 kW savings total	-8.00	-7.20
	Operate only two re-liquifier compressors instead of three in winter, save 17.0 kVA in 2007 projection.	-16.30	-14.67
	Duty cycle N2 generators, save 12 kVA from 2006 estimate. Measurement for N2 was changed to 24 kVA per Bob Morse.	-12.00	-10.80
	Turn off SPASE II (4 kW), AMANDA muon-DAQ (5-6 kW) and SN-tag (3.5 kW) if approved by project collaboration, will impact science scope per B. Morse.	-10.60	-9.54
	ICECUBE 2007 potential savings, one year only, required 2008, per Tiger Team report	-7.80	-7.02
	SPT 1-year operational FY07 only savings, required FY08. See notes #12, av red to 62 kW (68 kVA)av, 72 kW (77 kVA) pk FY07. Implemented above per SP.	0.00	0.00

	Total potential Average savings (Peak savings at least equal to average, actual TBD)	**-63.0**	**-56.7**