

Filename: JP 013006 Tara Transformer EC_Tables.xls
Last Revised : 1/30/2006 Deleted SOUTH DIV Energy Tables (EC-2's)
9/10/2004 Add note to print correctly formatted tables
9/23/2000 Created PDF's of all tables for CCB.

Rev By: JWP

Notes:

1. When prompt comes up asking to update links, select "NO".
2. To Print Specific Tables, click on table name and select print command, set pg at 95 %..
3. To print all pages as one pdf: Start at Index, hold down shift, go to last pg, click to highlight all, select file, then pg setup, adjust to 95 %, do print preview to verify proper pg breaks, print.

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TABLE EC - 1

ENERGY COSTS AT LANTNAVFACENGCOM ACTIVITIES

<u>ACTIVITY</u>	<u>SUPPLIER</u>	<u>COST/KWH</u>
LANTOPS AREA:		
NAVSTA Norfolk	Va. Power	\$.01968
Oceana	Va. Power	\$.01968
Dam Neck	Va. Power	\$.01968
Little Creek	Va. Power	\$.01968
Fort Story	Va. Power	\$.01968
Carper Housing	Va. Power	\$.01968
Shipyard	Va. Power	\$.01968
Naval Hospital	Va. Power	\$.01968
St. Juliens Creek	Va. Power	\$.01968
Cheatham Annex	Va. Power	\$.01968
Yorktown	Va. Power	\$.01968
Camp Peary	Va. Power	\$.01968
Northwest	Va. Power	\$.01968
Lafayette River	Va. Power	\$.04300
Fentress	Va. Power	\$.04300
Woodbr. Crossing	Va. Power	\$.04300
Craney Island	Va. Power	\$.04300
Camp Lejeune	CP&L	\$.03692
	Jones EMC	\$.07240
Cherry Point	CP&L	\$.03692
	Carteret Craven EMC	\$.05550
Sugar Grove	Monongahela Pwr.	\$.02489
Bermuda	BELCO	\$.07635
Roosevelt Roads	PREPA	\$.02800
Iceland	SRHC	\$.04450
GTMO		\$.07240
Europe	Cont. Code 164 - R. Morris 757 322-4689	
NORTHDIV AREA:		
NAS Willow Grove	PECO	\$.03500
ASO Philadelphia	PECO	\$.03500
NAWC Warminister	PECO	\$.03500
NWS Earle	Jersey Central	\$.09500
NAWC Lakehurst	Jersey Central	\$.09500

TABLE EC - 1 (Cont'd)

ENERGY COSTS AT LANTNAVFACENGCOM ACTIVITIES

<u>ACTIVITY</u>	<u>SUPPLIER</u>	<u>COST/KWH</u>
NORTHDIV AREA: (Cont'd)		
Portsmouth NSY	Central Maine Pwr	\$.04600
NAS Brunswick	Central Maine Pwr	\$.04600
NAS S. Weymouth	Mass. Elec.	\$.03794
New London	City of Groton	\$.04230
NETC Newport	Newport Elec.	\$.12736
SPCC Mechanicsburg	PA Pwr & Lt.	\$.03210
EFA CHES AREA:		
NMRC Bethesda	PEPCO-MD	\$.02600
NSWC Carderock	PEPCO-MD	\$.02600
NCD Cheltenham	PEPCO-MD	\$.02600
NSWC White Oak	PEPCO-MD	\$.02600
NSWC Indian Head	PEPCO-MD	\$.02600
Naval Observatory	PEPCO-DC	\$.05000
Wash Navy Yard	PEPCO-DC	\$.05000
Marine Barracks	PEPCO-DC	\$.05000
Nav. Res. Lab	PEPCO-DC	\$.05000
Nav. Security Sta.	PEPCO-DC	\$.05000
NAS Patuxent River	SMECO	\$.02400
NESEA	SMECO	\$.02400
Nav. Res Lab.	SMECO	\$.03500
NSWC Indian Head	SMECO	\$.03500
NSWC Dahlgren	Va. Pwr.	\$.01968
Arlington Ser. Ctr.	Va. Pwr.	\$.01968
HQ Mar. Corps, Hend. Hall	Va. Pwr.	\$.01968
Nav. Res. Lab	Va. Pwr.	\$.01968
U.S. Naval Academy	BG & E	\$.02800
Taylor Res. Ctr., Annap.	BG & E	\$.13400
NRC Baltimore	BG & E	\$.13400
MCCD, Quantico		
3 ser. @ rate MS	Va. Pwr.	\$.01968
1 ser. @ rate GS-3	Va. Pwr.	\$.04380
3 ser. @ rate GS-2	Va. Pwr.	\$.01173
1 ser. @ rate PS-10A	Va. Pwr.	\$.03809

TABLE PM - 1 - XFMR LOSS & IMPEDANCE DATA, EC <= \$.04

A = 5.3
 B = 2.1
 Use this data for Energy Cost (EC) <= \$.04

LANTDIV
 Code 404
 Sep '96

3 Phase Pad
 4160v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	175	243	286	373	548	784	915	1138	1410
LL	666	1056	1143	1605	1710	2993	4795	6023	9365
Min %Z	3.04	2.59	2.66	2.65	3	3.6	5.32	5.32	5.32

3 Phase Pad
 4160v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	177	259	329	412	557	791	846
LL	836	1153	1249	1716	2037	3693	6001
Min %Z	2.16	2.81	2.7	2.49	3.83	4.3	5.32

3 Phase Pad
 12470v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	190	255	289	373	510	779	959	1128	1685
LL	644	941	1251	1579	1799	2646	4448	6068	8359
Min %Z	2.15	2.24	2.73	2.67	4	3.86	5.32	5.32	5.32

3 Phase Pad
 12470v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	177	230	297	412	574	807	941
LL	703	1013	1305	1688	1879	2999	5526
Min %Z	2.45	2.64	2.7	2.52	2.74	3.83	5.32

3 Phase Pad
 24940v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	196	261	330	413	550	769	1073	1226	1601
LL	660	989	1278	1620	1753	2803	3957	5442	8124
Min %Z	2.34	2.87	3.02	3.76	3.14	3.82	5.32	5.32	5.32

TABLE PM - 1 - XFMR LOSS & IMPEDANCE DATA, EC <= \$.04 (Cont'd)

3 Phase Pad
24940v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	183	275	312	435	574	745	1081
LL	699	1004	1280	1538	2148	3226	5019
Min %Z	2.97	2.54	2.91	3.47	2.88	3.81	5.32

3 Phase Pad
34500v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	284	250	373	480	610	780	1002	1258	1617
LL	710	977	1183	1674	1795	2742	4244	5364	8028
Min %Z	1.76	2.74	3.03	3.11	2.84	3.8	5.32	5.32	5.32

3 Phase Pad
34500v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	233	325	314	425	608	831	1081
LL	728	983	1254	1784	2157	3383	5282
Min %Z	2.12	2.58	3.02	2.87	3.02	4.49	5.32

TABLE PM - 2 - XFMR LOSS & IMP DATA, \$0.04 < EC <= \$0.08

A = 9.5

B = 3.3

Use this data for Energy Cost: \$0.04 < EC <= \$0.08

LANTDIV

Code 404

Sep '96

3 Phase Pad
4160v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	158	233	255	373	454	719	841	1003	1367
LL	719	880	1082	1469	1698	2579	4358	5930	9363
Min %Z	2.15	2.69	3.44	2.65	3.81	3.73	5.32	5.32	5.32

3 Phase Pad
4160v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	152	223	285	372	457	723	922
LL	756	945	1171	1595	2029	3073	5328
Min %Z	2.7	2.81	2.7	3.16	3.83	4.37	5.32

3 Phase Pad
12470v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	158	210	291	373	438	721	856	1047	1363
LL	745	894	1075	1494	1718	2500	4445	5590	8539
Min %Z	2.7	2.69	2.96	2.67	3.88	3.91	5.32	5.32	5.32

3 Phase Pad
12470v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	167	224	291	412	475	741	922
LL	742	917	1103	1728	1872	3017	5272
Min %Z	2.45	3.22	3.11	2.52	3.86	4.24	5.32

3 Phase Pad
24940v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	175	235	289	400	462	728	878	1128	1601
LL	706	847	1042	1419	1789	2535	4310	5423	7631
Min %Z	2.69	2.9	2.94	3.39	3.94	3.84	5.32	5.32	5.32

TABLE PM - 2 - XFMR LOSS & IMP DATA, \$.04 < EC <= \$.08 (Cont'd)

3 Phase Pad
24940v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	173	220	299	389	557	745	1081
LL	686	888	1101	1451	1869	3093	4844
Min %Z	2.64	3.24	2.79	3.31	3.88	4.83	5.32

3 Phase Pad
34500v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	197	215	280	415	502	695	998	1105	1601
LL	657	852	1053	1516	1658	2745	4187	5382	8027
Min %Z	2.04	2.91	3.89	3.3	3.55	4.08	5.32	5.32	5.32

3 Phase Pad
34500v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	178	259	304	378	533	719	928
LL	726	808	1183	1670	2208	3110	5100
Min %Z	2.68	2.98	3.17	3.5	3.68	4.07	5.32

TABLE PM - 3 - XFMR LOSS & IMP DATA, \$.08 < EC <= \$.12

A = 13.7

B = 4.5

Use this data for Energy Cost: \$.08 < EC <= \$.12

LANTDIV

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Sep '96

3 Phase Pad
4160v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	149	212	255	356	450	663	745	1009	1363
LL	597	837	980	1468	1698	2448	4391	5645	9312
Min %Z	2.84	3.07	3.39	3.17	4.24	4.13	5.32	5.32	5.32

3 Phase Pad
4160v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	150	215	275	375	457	676	895
LL	702	860	1038	1520	1840	2980	5239
Min %Z	2.7	3.15	2.55	3.07	3.84	4.45	5.32

3 Phase Pad
12470v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	147	207	255	326	421	676	802	970	1363
LL	596	834	1037	1498	1661	2428	4137	5625	8539
Min %Z	2.94	3.44	3.86	3.08	3.84	4.19	5.32	5.32	5.32

3 Phase Pad
12470v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	156	216	270	337	455	659	832
LL	612	806	1103	1569	1877	3077	5186
Min %Z	2.7	3.22	3.5	3.03	3.85	4.51	5.32

3 Phase Pad
24940v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	164	223	285	356	465	675	843	1039	1601
LL	576	829	948	1420	1692	2509	3903	5153	7631
Min %Z	2.88	2.76	2.91	3.39	3.84	3.98	5.32	5.32	5.32

TABLE PM - 3 - XFMR LOSS & IMP DATA, \$.08 < EC <= \$.12 (Cont'd)

3 Phase Pad
24940v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	160	195	282	400	500	713	934
LL	663	905	1072	1370	1859	3092	4793
Min %Z	3	3.1	3.62	4.06	4.09	5.12	5.32

3 Phase Pad
34500v - 480Y/277v

kVA	75	112.5	150	225	300	500	750	1000	1500
NLL	155	227	272	369	461	656	915	1108	1601
LL	628	790	1012	1290	1656	2600	3850	5382	8027
Min %Z	3.07	3.36	2.94	3.92	3.97	3.84	5.32	5.32	5.32

3 Phase Pad
34500v - 208Y/120v

kVA	75	112.5	150	225	300	500	750
NLL	173	262	281	384	463	686	962
LL	630	834	1058	1506	2078	3138	4693
Min %Z	2.68	3.15	2.78	4.21	3.73	4.11	5.32

TABLE EC - 1

ENERGY COSTS AT LANTNAVFACENGCOM ACTIVITIES

<u>ACTIVITY</u>	<u>SUPPLIER</u>	<u>COST/KWH</u>
LANTOPS AREA:		
NAVSTA Norfolk	Va. Power	\$.01968
Oceana	Va. Power	\$.01968
Dam Neck	Va. Power	\$.01968
Little Creek	Va. Power	\$.01968
Fort Story	Va. Power	\$.01968
Carper Housing	Va. Power	\$.01968
Shipyard	Va. Power	\$.01968
Naval Hospital	Va. Power	\$.01968
St. Juliens Creek	Va. Power	\$.01968
Cheatham Annex	Va. Power	\$.01968
Yorktown	Va. Power	\$.01968
Camp Peary	Va. Power	\$.01968
Northwest	Va. Power	\$.01968
Lafayette River	Va. Power	\$.04300
Fentress	Va. Power	\$.04300
Woodbr. Crossing	Va. Power	\$.04300
Craney Island	Va. Power	\$.04300
Camp Lejeune	CP&L	\$.03692
	Jones EMC	\$.07240
Cherry Point	CP&L	\$.03692
	Carteret Craven EMC	\$.05550
Sugar Grove	Monongahela Pwr.	\$.02489
Bermuda	BELCO	\$.07635
Roosevelt Roads	PREPA	\$.02800
Iceland	SRHC	\$.04450
GTMO		\$.07240
Europe	Cont. Code 164 - R. Morris 757 322-4689	
NORTHDIV AREA:		
NAS Willow Grove	PECO	\$.03500
ASO Philadelphia	PECO	\$.03500
NAWC Warminister	PECO	\$.03500
NWS Earle	Jersey Central	\$.09500
NAWC Lakehurst	Jersey Central	\$.09500

TABLE EC - 1 (Cont'd)

ENERGY COSTS AT LANTNAVFACENGCOM ACTIVITIES

<u>ACTIVITY</u>	<u>SUPPLIER</u>	<u>COST/KWH</u>
NORTHDIV AREA: (Cont'd)		
Portsmouth NSY	Central Maine Pwr	\$.04600
NAS Brunswick	Central Maine Pwr	\$.04600
NAS S. Weymouth	Mass. Elec.	\$.03794
New London	City of Groton	\$.04230
NETC Newport	Newport Elec.	\$.12736
SPCC Mechanicsburg	PA Pwr & Lt.	\$.03210
EFA CHES AREA:		
NMRC Bethesda	PEPCO-MD	\$.02600
NSWC Carderock	PEPCO-MD	\$.02600
NCD Cheltenham	PEPCO-MD	\$.02600
NSWC White Oak	PEPCO-MD	\$.02600
NSWC Indian Head	PEPCO-MD	\$.02600
Naval Observatory	PEPCO-DC	\$.05000
Wash Navy Yard	PEPCO-DC	\$.05000
Marine Barracks	PEPCO-DC	\$.05000
Nav. Res. Lab	PEPCO-DC	\$.05000
Nav. Security Sta.	PEPCO-DC	\$.05000
NAS Patuxent River	SMECO	\$.02400
NESEA	SMECO	\$.02400
Nav. Res Lab.	SMECO	\$.03500
NSWC Indian Head	SMECO	\$.03500
NSWC Dahlgren	Va. Pwr.	\$.01968
Arlington Ser. Ctr.	Va. Pwr.	\$.01968
HQ Mar. Corps, Hend. Hall	Va. Pwr.	\$.01968
Nav. Res. Lab	Va. Pwr.	\$.01968
U.S. Naval Academy	BG & E	\$.02800
Taylor Res. Ctr., Annap.	BG & E	\$.13400
NRC Baltimore	BG & E	\$.13400
MCCD, Quantico		
3 ser. @ rate MS	Va. Pwr.	\$.01968
1 ser. @ rate GS-3	Va. Pwr.	\$.04380
3 ser. @ rate GS-2	Va. Pwr.	\$.01173
1 ser. @ rate PS-10A	Va. Pwr.	\$.03809

TABLE US - 1 - XFMR LOSS & IMP DATA, EC <= \$.04

A = 5.3
 B = 2.1
 Use this data for Energy Cost (EC) <= \$.04

LANTDIV
 Code 404
 Sep '96

Sec Unit Substation
 4160v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	548	805	1091	1345	1800	2227	2655
LL	2346	3554	5041	6324	9049	13145	16685
Min %Z	2.95	3.4	5.32	5.32	5.32	5.32	5.32

Sec Unit Substation
 4160v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	527	791	1045	1391	1773
LL	2803	4402	6455	8137	12596
Min %Z	2.95	3.4	5.32	5.32	5.32

Sec Unit Substation
 12470v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	582	818	1091	1345	1727	2336	2700
LL	2145	3304	4711	6076	8360	11216	13562
Min %Z	3.3	3.35	5.32	5.32	5.32	5.32	5.32

Sec Unit Substation
 12470v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	591	807	1064	1382	1809
LL	2532	4087	6050	7222	11497
Min %Z	3.3	3.35	5.32	5.32	5.32

Sec Unit Substation
 24940v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	618	845	1164	1409	1964	2427	2891
LL	2231	3305	4478	5789	8272	10572	14396
Min %Z	3.35	3.35	5.32	5.32	5.32	5.32	5.32

TABLE US - 1 - XFMR LOSS & IMP DATA, EC <= \$.04 (Cont'd)

Sec Unit Substation
24940v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	623	836	1173	1409	1955
LL	2528	4173	5780	7232	12164
Min %Z	3.5	3.5	5.32	5.32	5.32

Sec Unit Substation
34500v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	627	886	1227	1473	1991	2500	2936
LL	1939	3359	4395	5631	8198	10175	13500
Min %Z	3	4	5.32	5.32	5.32	5.32	5.32

Sec Unit Substation
34500v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	627	873	1209	1455	2045
LL	2288	4090	5678	7244	11486
Min %Z	3	4	5.32	5.32	5.32

TABLE US - 2 - XFMR LOSS & IMP DATA, \$0.04 < EC <= \$0.08

A = 9.5

B = 3.3

Use this data for Energy Cost: \$0.04 < EC <= \$0.08

LANTDIV

Code 404

Sep '96

Sec Unit Substation
4160v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	582	782	1091	1391	1818	2145	2627
LL	2145	3265	4702	5958	9024	11864	16030
Min %Z	3.2	3.3	5.32	5.32	5.32	5.32	5.32

Sec Unit Substation
4160v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	573	791	1109	1300	1355
LL	2512	4030	5948	7908	12849
Min %Z	3.2	3.3	5.32	5.32	5.32

Sec Unit Substation
12470v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	577	855	1164	1427	1982	2145	2809
LL	1923	3013	4299	5605	8020	10072	15047
Min %Z	3.5	3.5	5.32	5.32	5.32	5.32	5.32

Sec Unit Substation
12470v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	586	855	1164	1409	1445
LL	2253	3778	5553	6789	11825
Min %Z	3.5	3.5	5.32	5.32	5.32

Sec Unit Substation
24940v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	659	945	1273	1527	2073	2491	3045
LL	2067	3017	4142	5332	7591	9688	13332
Min %Z	3.3	3.6	5.32	5.32	5.32	5.32	5.32

TABLE US - 2 - XFMR LOSS & IMP DATA, \$.04 < EC <= \$.08 (Cont'd)

Sec Unit Substation
24940v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	609	936	1245	1500	2000
LL	2514	3771	5405	6830	10594
Min %Z	3.3	3.6	5.32	5.32	5.32

Sec Unit Substation
34500v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	673	973	1318	1573	2182	2609	3182
LL	1912	2980	4040	5220	7613	9514	12808
Min %Z	3	4	5.32	5.32	5.32	5.32	5.32

Sec Unit Substation
34500v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	650	945	1291	1582	2082
LL	2212	4715	5275	6635	10955
Min %Z	3	4	5.32	5.32	5.32

TABLE US - 3 - XFMR LOSS & IMP DATA, \$0.08 < EC <= \$0.12

A = 13.7

B = 4.5

Use this data for Energy Cost: \$0.08 < EC <= \$0.12

LANTDIV

Code 404

Sep '96

Sec Unit Substation
4160v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	573	800	1118	1445	1918	2427	2809
LL	1993	3068	4405	5621	9084	12383	16555
Min %Z	3.3	3.5	5.32	5.32	5.32	5.32	5.32

Sec Unit Substation
4160v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	573	814	1118	1291	1664
LL	2323	3809	5806	7464	13045
Min %Z	3.3	3.5	5.32	5.32	5.32

Sec Unit Substation
12470v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	636	900	1200	1482	1973	2400	2782
LL	1769	2647	3913	5645	7996	9903	12737
Min %Z	3.5	3.7	5.32	5.32	5.32	5.32	5.32

Sec Unit Substation
12470v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	632	886	1182	1500	1891
LL	2132	3538	5337	6321	10515
Min %Z	3.5	3.7	5.32	5.32	5.32

Sec Unit Substation
24940v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	673	936	1209	1591	2136	2545	2591
LL	1912	2790	3932	5134	7608	9741	12944
Min %Z	3.6	3.6	5.32	5.32	5.32	5.32	5.32

TABLE US - 3 - XFMR LOSS & IMP DATA, \$.08 < EC <= \$.12 (Cont'd)

Sec Unit Substation
24940v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	650	927	1300	1591	2000
LL	2473	3507	5125	6598	10358
Min %Z	3.6	3.6	5.32	5.32	5.32

Sec Unit Substation
34500v - 480Y/277v

kVA	300	500	750	1000	1500	2000	2500
NLL	723	991	1364	1682	2200	2755	3200
LL	1853	2773	3750	4846	6946	9274	12330
Min %Z	3.5	4	5.32	5.32	5.32	5.32	5.32

Sec Unit Substation
34500v - 208Y/120v

kVA	300	500	750	1000	1500
NLL	691	964	1355	1682	2118
LL	2111	3593	4938	6337	10146
Min %Z	3.5	4	5.32	5.32	5.32

TABLE EC - 1

ENERGY COSTS AT LANTNAVFACENGCOM ACTIVITIES

<u>ACTIVITY</u>	<u>SUPPLIER</u>	<u>COST/KWH</u>
LANTOPS AREA:		
NAVSTA Norfolk	Va. Power	\$.01968
Oceana	Va. Power	\$.01968
Dam Neck	Va. Power	\$.01968
Little Creek	Va. Power	\$.01968
Fort Story	Va. Power	\$.01968
Carper Housing	Va. Power	\$.01968
Shipyard	Va. Power	\$.01968
Naval Hospital	Va. Power	\$.01968
St. Juliens Creek	Va. Power	\$.01968
Cheatham Annex	Va. Power	\$.01968
Yorktown	Va. Power	\$.01968
Camp Peary	Va. Power	\$.01968
Northwest	Va. Power	\$.01968
Lafayette River	Va. Power	\$.04300
Fentress	Va. Power	\$.04300
Woodbr. Crossing	Va. Power	\$.04300
Craney Island	Va. Power	\$.04300
Camp Lejeune	CP&L	\$.03692
	Jones EMC	\$.07240
Cherry Point	CP&L	\$.03692
	Carteret Craven EMC	\$.05550
Sugar Grove	Monongahela Pwr.	\$.02489
Bermuda	BELCO	\$.07635
Roosevelt Roads	PREPA	\$.02800
Iceland	SRHC	\$.04450
GTMO		\$.07240
Europe	Cont. Code 164 - R. Morris 757 322-4689	
NORTHDIV AREA:		
NAS Willow Grove	PECO	\$.03500
ASO Philadelphia	PECO	\$.03500
NAWC Warminister	PECO	\$.03500
NWS Earle	Jersey Central	\$.09500
NAWC Lakehurst	Jersey Central	\$.09500

TABLE EC - 1 (Cont'd)

ENERGY COSTS AT LANTNAVFACENGCOM ACTIVITIES

<u>ACTIVITY</u>	<u>SUPPLIER</u>	<u>COST/KWH</u>
NORTHDIV AREA: (Cont'd)		
Portsmouth NSY	Central Maine Pwr	\$.04600
NAS Brunswick	Central Maine Pwr	\$.04600
NAS S. Weymouth	Mass. Elec.	\$.03794
New London	City of Groton	\$.04230
NETC Newport	Newport Elec.	\$.12736
SPCC Mechanicsburg	PA Pwr & Lt.	\$.03210
EFA CHES AREA:		
NMRC Bethesda	PEPCO-MD	\$.02600
NSWC Carderock	PEPCO-MD	\$.02600
NCD Cheltenham	PEPCO-MD	\$.02600
NSWC White Oak	PEPCO-MD	\$.02600
NSWC Indian Head	PEPCO-MD	\$.02600
Naval Observatory	PEPCO-DC	\$.05000
Wash Navy Yard	PEPCO-DC	\$.05000
Marine Barracks	PEPCO-DC	\$.05000
Nav. Res. Lab	PEPCO-DC	\$.05000
Nav. Security Sta.	PEPCO-DC	\$.05000
NAS Patuxent River	SMECO	\$.02400
NESEA	SMECO	\$.02400
Nav. Res Lab.	SMECO	\$.03500
NSWC Indian Head	SMECO	\$.03500
NSWC Dahlgren	Va. Pwr.	\$.01968
Arlington Ser. Ctr.	Va. Pwr.	\$.01968
HQ Mar. Corps, Hend. Hall	Va. Pwr.	\$.01968
Nav. Res. Lab	Va. Pwr.	\$.01968
U.S. Naval Academy	BG & E	\$.02800
Taylor Res. Ctr., Annap.	BG & E	\$.13400
NRC Baltimore	BG & E	\$.13400
MCCD, Quantico		
3 ser. @ rate MS	Va. Pwr.	\$.01968
1 ser. @ rate GS-3	Va. Pwr.	\$.04380
3 ser. @ rate GS-2	Va. Pwr.	\$.01173
1 ser. @ rate PS-10A	Va. Pwr.	\$.03809

TABLE SPPM - 1
SINGLE PHASE PAD-MOUNTED TRANSFORMER LOSS & IMPEDANCE DATA
EC <= \$.04

A = 5.3
 B = 2.1
 Use this data for Energy Cost (EC) <= \$.04

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4160GrdY/2400 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	43	48	66	91	118	159	185	315	344
LL	112	174	257	428	363	612	777	1658	1896
MIN %Z	1.07	1.26	1.17	1.28	1.07	1.29	1.19	1.26	1.79

12,470GrdY/7,200 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	37	52	70	95	116	152	184	267	360
LL	110	161	256	335	382	563	675	1291	1823
MIN %Z	1.18	1.46	1.24	1.38	1.25	1.17	1.39	1.65	1.89

12,000 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	45	54	70	96	122	174	213	327	325
LL	107	175	250	437	487	595	770	1247	1840
MIN %Z	1.10	1.06	1.28	1.04	1.30	1.02	1.19	1.27	1.88

24,940GrdY/14,400 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	47	56	81	101	116	174	213	267	352
LL	129	165	260	447	438	573	713	1438	1969
MIN %Z	1.05	1.16	1.24	1.35	1.36	1.09	1.45	1.58	2.05

34,500GrdY/19,920 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	43	65	81	109	137	174	201	327	335
LL	139	168	283	409	458	582	862	1229	1881
MIN %Z	1.34	1.06	1.43	1.31	1.52	1.24	1.69	1.34	2.24

TABLE SPPM - 2
SINGLE PHASE PAD-MOUNTED TRANSFORMER LOSS & IMPEDANCE DATA
\$.04 < EC <= \$.08

A = 9.5

B = 3.3

Use this data for Energy Cost (EC) <= \$.08

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Aug '97

4160GrdY/2400 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	33	44	62	86	114	152	185	241	331
LL	106	174	250	428	380	540	677	1658	1803
MIN %Z	1.28	1.26	1.17	1.28	1.07	1.18	1.19	1.51	1.82

12,470GrdY/7,200 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	37	45	65	95	96	152	179	267	329
LL	109	161	256	329	369	612	675	1291	1729
MIN %Z	1.18	1.49	1.24	1.24	1.30	1.29	1.39	1.65	1.89

12,000 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	39	47	67	86	105	160	213	327	315
LL	107	175	250	437	487	595	707	1247	1860
MIN %Z	1.19	1.36	1.29	1.26	1.34	1.63	1.34	1.45	1.91

24,940GrdY/14,400 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	42	47	69	89	116	140	213	267	332
LL	113	165	260	447	392	573	674	1438	1782
MIN %Z	1.05	1.39	1.25	1.35	1.36	1.10	1.45	1.58	2.06

34,500GrdY/19,920 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	39	53	79	103	115	155	174	327	315
LL	139	152	283	409	458	581	862	1229	1881
MIN %Z	1.34	1.55	1.48	1.60	1.73	1.46	1.69	1.87	2.24

TABLE SPPM - 3
SINGLE PHASE PAD-MOUNTED TRANSFORMER LOSS & IMPEDANCE DATA
\$.08 < EC <= \$.12

A = 13.7

B = 4.5

Use this data for Energy Cost (EC) <= \$0.12

LANTDIV

Code 404

Aug '97

4160GrdY/2400 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	32	42	59	86	114	152	185	236	315
LL	106	174	250	428	345	492	715	1658	1767
MIN %Z	1.24	1.26	1.27	1.50	1.07	1.26	1.19	1.51	1.95

12,470GrdY/7,200 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	33	42	59	95	99	152	179	267	329
LL	109	161	256	329	354	612	675	1291	1722
MIN %Z	1.13	1.24	1.38	1.27	1.31	1.29	1.39	1.58	1.89

12,000 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	35	44	63	86	101	160	213	327	315
LL	107	175	250	437	487	595	656	1247	1860
MIN %Z	1.19	1.29	1.17	1.15	1.07	1.48	1.38	1.59	1.96

24,940GrdY/14,400 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	37	43	62	86	104	140	213	267	332
LL	113	165	260	447	392	573	674	1438	1782
MIN %Z	1.05	1.30	1.12	1.57	1.36	1.31	1.45	1.65	2.06

34,500GrdY/19,920 - 240/120 v

kVA	10	15	25	37.5	50	75	100	167	250
NLL	39	50	66	95	109	151	160	327	315
LL	139	168	283	409	458	581	862	1229	1881
MIN %Z	1.34	1.49	1.30	1.54	1.73	1.46	1.74	1.87	2.24

TABLE EC - 1

ENERGY COSTS AT LANTNAVFACENGCOM ACTIVITIES

<u>ACTIVITY</u>	<u>SUPPLIER</u>	<u>COST/KWH</u>
LANTOPS AREA:		
NAVSTA Norfolk	Va. Power	\$.01968
Oceana	Va. Power	\$.01968
Dam Neck	Va. Power	\$.01968
Little Creek	Va. Power	\$.01968
Fort Story	Va. Power	\$.01968
Carper Housing	Va. Power	\$.01968
Shipyard	Va. Power	\$.01968
Naval Hospital	Va. Power	\$.01968
St. Juliens Creek	Va. Power	\$.01968
Cheatham Annex	Va. Power	\$.01968
Yorktown	Va. Power	\$.01968
Camp Peary	Va. Power	\$.01968
Northwest	Va. Power	\$.01968
Lafayette River	Va. Power	\$.04300
Fentress	Va. Power	\$.04300
Woodbr. Crossing	Va. Power	\$.04300
Craney Island	Va. Power	\$.04300
Camp Lejeune	CP&L	\$.03692
	Jones EMC	\$.07240
Cherry Point	CP&L	\$.03692
	Carteret Craven EMC	\$.05550
Sugar Grove	Monongahela Pwr.	\$.02489
Bermuda	BELCO	\$.07635
Roosevelt Roads	PREPA	\$.02800
Iceland	SRHC	\$.04450
GTMO		\$.07240
Europe	Cont. Code 164 - R. Morris 757 322-4689	
NORTHDIV AREA:		
NAS Willow Grove	PECO	\$.03500
ASO Philadelphia	PECO	\$.03500
NAWC Warminister	PECO	\$.03500
NWS Earle	Jersey Central	\$.09500
NAWC Lakehurst	Jersey Central	\$.09500

TABLE EC - 1 (Cont'd)

ENERGY COSTS AT LANTNAVFACENGCOM ACTIVITIES

<u>ACTIVITY</u>	<u>SUPPLIER</u>	<u>COST/KWH</u>
NORTHDIV AREA: (Cont'd)		
Portsmouth NSY	Central Maine Pwr	\$.04600
NAS Brunswick	Central Maine Pwr	\$.04600
NAS S. Weymouth	Mass. Elec.	\$.03794
New London	City of Groton	\$.04230
NETC Newport	Newport Elec.	\$.12736
SPCC Mechanicsburg	PA Pwr & Lt.	\$.03210
EFA CHES AREA:		
NMRC Bethesda	PEPCO-MD	\$.02600
NSWC Carderock	PEPCO-MD	\$.02600
NCD Cheltenham	PEPCO-MD	\$.02600
NSWC White Oak	PEPCO-MD	\$.02600
NSWC Indian Head	PEPCO-MD	\$.02600
Naval Observatory	PEPCO-DC	\$.05000
Wash Navy Yard	PEPCO-DC	\$.05000
Marine Barracks	PEPCO-DC	\$.05000
Nav. Res. Lab	PEPCO-DC	\$.05000
Nav. Security Sta.	PEPCO-DC	\$.05000
NAS Patuxent River	SMECO	\$.02400
NESEA	SMECO	\$.02400
Nav. Res Lab.	SMECO	\$.03500
NSWC Indian Head	SMECO	\$.03500
NSWC Dahlgren	Va. Pwr.	\$.01968
Arlington Ser. Ctr.	Va. Pwr.	\$.01968
HQ Mar. Corps, Hend. Hall	Va. Pwr.	\$.01968
Nav. Res. Lab	Va. Pwr.	\$.01968
U.S. Naval Academy	BG & E	\$.02800
Taylor Res. Ctr., Annap.	BG & E	\$.13400
NRC Baltimore	BG & E	\$.13400
MCCD, Quantico		
3 ser. @ rate MS	Va. Pwr.	\$.01968
1 ser. @ rate GS-3	Va. Pwr.	\$.04380
3 ser. @ rate GS-2	Va. Pwr.	\$.01173
1 ser. @ rate PS-10A	Va. Pwr.	\$.03809

TABLE OH - 1
SINGLE PHASE POLE - MOUNTED TRANSFORMER LOSS & IMPEDANCE DATA
EC <= \$.04

A = 5.3
 B = 2.1
 Use this data for Energy Cost (EC) <= \$0.04

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2400/4160Y - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	32	50	69	85	111	157	207	262
LL	118	146	274	361	408	556	721	1104
MIN %Z	1.15	1.16	1.18	1.21	1.30	1.35	1.47	1.44

2400/4160Y - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	34	43	64	88	109	153	192	274
LL	116	171	264	353	455	579	803	997
MIN %Z	1.14	1.26	1.25	1.23	1.33	1.32	1.23	1.37

7,200/12,470Y - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	39	47	69	88	115	163	172	257
LL	111	160	254	351	415	565	717	1103
MIN %Z	1.07	1.17	1.25	1.45	1.25	1.45	1.31	1.42

7,200/12,470Y - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	34	51	65	90	115	150	192	289
LL	107	158	245	344	435	537	634	991
MIN %Z	1.15	1.16	1.29	1.30	1.32	1.34	1.40	1.15

12,000 - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	37	50	69	92	115	201	181	273
LL	124	155	249	344	428	580	732	1504
MIN %Z	1.14	1.29	1.27	1.32	1.28	1.25	1.66	1.58

TABLE OH - 1 (Cont'd)
SINGLE PHASE POLE - MOUNTED TRANSFORMER LOSS & IMPEDANCE DATA
EC <= \$.04

A = 5.3
 B = 2.1
 Use this data for Energy Cost (EC) <= \$0.04

LANTDIV
 Code 404
 Sep '97

12,000 - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	37	49	70	93	111	166	229	280
LL	117	173	239	336	427	561	796	900
MIN %Z	1.12	1.25	1.23	1.33	1.51	1.44	1.01	1.47

14,400/24,940Y - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	40	48	69	90	106	149	234	259
LL	125	171	257	340	399	605	750	1115
MIN %Z	1.10	1.34	1.35	1.59	1.68	1.96	1.28	1.60

14,400/24,940Y - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	37	47	69	102	109	149	192	273
LL	121	162	249	332	453	610	834	1014
MIN %Z	1.19	1.39	1.30	1.44	1.52	1.55	1.53	1.73

34,500GrdY/19,920 - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	43	54	69	96	112	167	208	290
LL	138	165	281	337	433	610	748	1167
MIN %Z	1.20	1.58	1.55	1.41	1.78	1.70	1.40	1.81

34,500GrdY/19,920 - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	39	58	75	94	109	171	203	267
LL	118	176	271	322	426	658	663	1039
MIN %Z	1.33	1.44	1.48	1.46	1.53	1.58	1.84	1.71

**TABLE OH - 2
SINGLE PHASE POLE - MOUNTED TRANSFORMER LOSS & IMPEDANCE DATA
\$.04 < EC <= \$.08**

A = 9.5
B = 3.3
Use this data for Energy Cost (EC) <= \$0.08

LANTDIV
Code 404
Sep '97

2400/4160Y - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	31	42	61	80	108	143	164	262
LL	105	173	248	338	408	580	713	1104
MIN %Z	1.26	1.30	1.30	1.42	1.26	1.38	1.56	1.39

2400/4160Y - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	33	41	62	80	105	133	192	243
LL	114	171	239	324	455	605	803	997
MIN %Z	1.02	1.29	1.24	1.45	1.34	1.25	1.42	1.37

7,200/12,470Y - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	36	45	62	81	105	136	172	252
LL	109	160	254	338	392	565	706	1064
MIN %Z	1.22	1.17	1.27	1.48	1.47	1.44	1.31	1.42

7,200/12,470Y - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	37	44	63	83	99	133	192	253
LL	107	158	245	330	370	594	634	1090
MIN %Z	1.18	1.37	1.34	1.45	1.40	1.45	1.43	1.31

12,000 - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	32	50	61	81	105	133	179	247
LL	106	147	249	330	413	686	745	1504
MIN %Z	1.27	1.27	1.27	1.52	1.57	1.69	1.66	1.52

TABLE OH - 2 (Cont'd)
SINGLE PHASE POLE - MOUNTED TRANSFORMER LOSS & IMPEDANCE DATA
\$.04 < EC <= \$.08

A = 9.5
 B = 3.3
 Use this data for Energy Cost (EC) <= \$0.08

LANTDIV
 Code 404
 Sep '97

12,000 - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	31	47	63	86	104	166	229	267
LL	109	173	239	323	356	581	743	926
MIN %Z	1.29	1.25	1.25	1.38	1.53	1.44	1.01	1.25

14,400/24,940Y - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	34	47	65	90	105	145	208	271
LL	112	163	257	340	376	605	925	1115
MIN %Z	1.31	1.40	1.28	1.12	1.68	1.96	1.28	1.60

14,400/24,940Y - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	32	45	69	85	105	146	210	265
LL	121	162	248	332	407	610	894	1014
MIN %Z	1.37	1.39	1.28	1.46	1.66	1.55	1.46	1.41

34,500GrdY/19,920 - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	38	52	71	95	109	142	181	255
LL	138	164	281	330	414	596	666	1167
MIN %Z	1.28	1.63	1.63	1.65	1.77	1.92	1.91	1.64

34,500GrdY/19,920 - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	37	50	67	95	105	157	203	267
LL	118	197	271	322	426	546	635	988
MIN %Z	1.47	1.44	1.59	1.55	1.66	1.84	1.84	1.38

**TABLE OH - 3
SINGLE PHASE POLE - MOUNTED TRANSFORMER LOSS & IMPEDANCE DATA
\$.08 < EC <= \$.12**

A = 13.7
B = 4.5

LANTDIV
Code 404
Sep '97

Use this data for Energy Cost: \$0.08 < EC <= \$0.12

2400/4160Y - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	27	42	58	77	105	143	168	259
LL	105	173	248	332	377	579	713	1104
MIN %Z	1.26	1.37	1.37	1.44	1.55	1.38	1.81	1.44

2400/4160Y - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	31	41	59	77	93	130	192	240
LL	92	171	239	324	446	605	803	997
MIN %Z	1.25	1.30	1.19	1.40	1.52	1.45	1.26	1.37

7,200/12,470Y - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	30	43	60	79	115	129	172	252
LL	108	160	254	338	382	565	640	1064
MIN %Z	1.33	1.28	1.48	1.49	1.25	1.44	1.31	1.42

7,200/12,470Y - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	30	42	58	82	101	139	162	253
LL	106	158	245	338	360	578	748	1090
MIN %Z	1.29	1.31	1.50	1.46	1.64	1.45	1.59	1.75

12,000 - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	32	42	60	77	102	130	179	243
LL	106	174	249	330	413	686	745	1504
MIN %Z	1.34	1.45	1.54	1.55	1.57	1.69	1.66	1.52

TABLE OH - 3 (Cont'd)
SINGLE PHASE POLE - MOUNTED TRANSFORMER LOSS & IMPEDANCE DATA
\$.08 < EC <= \$.12

A = 13.7
 B = 4.5

LANTDIV
 Code 404
 Sep '97

Use this data for Energy Cost: \$0.08 < EC <= \$0.12

12,000 - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	34	41	60	83	104	166	229	267
LL	104	173	239	323	356	581	743	900
MIN %Z	1.30	1.48	1.25	1.44	1.53	1.44	1.01	1.55

14,400/24,940Y - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	31	49	60	82	106	145	208	252
LL	112	163	257	338	388	597	925	1115
MIN %Z	1.46	1.40	1.53	1.57	1.73	1.96	1.28	1.60

14,400/24,940Y - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	33	42	58	81	103	146	210	258
LL	109	162	248	332	407	637	894	1014
MIN %Z	1.30	1.52	1.46	1.46	1.66	1.55	1.46	1.41

34,500GrdY/19,920 - 120/240 v

kVA	10	15	25	37.5	50	75	100	167
NLL	37	52	65	91	103	131	173	252
LL	138	150	281	330	414	596	680	1167
MIN %Z	1.34	1.61	1.63	1.65	1.78	2.27	2.00	1.71

34,500GrdY/19,920 - 277 v

kVA	10	15	25	37.5	50	75	100	167
NLL	33	50	65	95	101	157	203	258
LL	118	197	271	322	426	546	635	988
MIN %Z	1.61	1.44	1.62	1.61	1.83	2.05	1.84	1.45