

Appendix

ECG Feeder Demand Forecast(Base case)

Unit: A

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Ashanti Main A	33	Adabo 1& 2	1,045	1,138	1,238	1,348	1,467	1,597	1,739	1,893	2,060	2,242	2,441	8.65%
Ashanti Main A	33	Aboabo 1& 2	887	894	901	908	915	922	929	936	943	951	958	0.77%
Ashanti Main A	11	Guinness 1	103	107	111	114	118	122	126	131	135	140	144	3.39%
Ashanti Main A	11	GBC	170	174	179	184	189	194	200	205	211	217	223	2.78%
Ashanti Main A	11	OBR	408	427	446	466	488	510	534	558	583	610	638	4.58%
Ashanti Main A	11	Ind/OHL	346	375	405	438	474	513	555	601	650	703	761	8.19%
Ashanti Main A	11	Power House 1	262	269	277	285	292	301	309	317	326	335	345	2.78%
Ashanti Main A	11	WAHW	144	148	152	156	161	165	170	174	179	184	189	2.78%
Ashanti Main A	11	Lake Road	387	405	423	443	463	484	507	530	554	580	606	4.59%
Ashanti Main A	11	Power House 2	410	431	452	475	499	525	551	579	609	640	672	5.07%
Ashanti Main A	11	Rain Tree	149	153	158	162	167	171	176	181	186	191	197	2.81%
Ashanti Main A	11	Guinness 2	206	211	217	223	229	236	242	249	256	263	270	2.78%
Ashanti Main A	11	New Asafo	87	90	92	95	97	100	103	106	109	112	115	2.78%
Ashanti Main A	11	LLL	103	106	109	112	115	118	121	125	128	132	135	2.78%
Ashanti Main B	33	Manso Nkwanta	31	32	33	33	34	35	36	37	38	39	41	2.78%
Ashanti Main B	33	Barekese 1	71	73	74	75	77	78	80	81	83	84	86	1.84%
Ashanti Main B	11	Barekese 2	107	110	113	116	119	123	126	129	133	137	141	2.78%
Ashanti Main B	11	B 11	313	322	331	340	350	359	369	380	390	401	412	2.78%
Ashanti Main B	11	B 21	207	226	247	270	295	322	351	384	419	457	499	9.18%
Ashanti Main B	11	B 31	113	118	125	131	138	145	152	160	169	177	187	5.19%
Ashanti Main B	11	B 41	87	90	92	95	97	100	103	106	109	112	115	2.78%
Ashanti Main B	11	B 61	365	386	409	434	460	487	516	547	580	615	651	5.97%
Ashanti Main B	11	B 71	333	342	352	362	372	382	393	403	413	426	438	2.78%
Ashanti Main B	11	B 81	332	341	351	360	370	381	391	402	413	425	437	2.78%
Ashanti Main C	33	Nsuta /Kumawu	251	263	276	289	304	318	334	350	368	386	405	4.90%
Ashanti Main C	11	G21	224	229	233	238	243	248	253	257	263	268	273	1.99%
Ashanti Main C	11	C31	164	169	174	179	183	189	194	199	205	210	216	2.78%
Ashanti Main C	11	G41	280	291	301	312	323	335	347	360	373	387	397	3.64%
Ashanti Main C	11	G51	177	187	197	208	219	231	244	257	271	286	302	5.47%
Ashanti Main C	11	Asokore Mampong	258	264	269	275	281	287	293	299	305	312	318	2.10%
Ashanti Main C	11	Airport 1	352	360	368	375	383	392	400	408	417	426	435	2.13%
Ashanti Main C	11	Airport 2	423	442	462	483	504	527	551	575	601	628	656	4.49%
Ashanti Main D	33	Bekwai	101	102	102	103	104	105	105	106	107	108	109	0.75%
Ashanti Main D	11	D11	170	176	182	188	194	201	207	214	221	229	236	3.32%
Ashanti Main D	11	D21	371	382	394	406	418	431	444	457	471	485	500	3.03%
Ashanti Main D	11	D31	421	433	445	457	470	483	497	510	525	539	554	2.78%
Ashanti Main D	11	D41	185	190	195	201	206	212	218	224	230	237	243	2.78%
Ashanti Main D	11	D51	185	190	195	201	206	212	218	224	230	237	243	2.78%
Ashanti Main E	11	E11	292	294	297	299	301	304	306	308	311	313	315	0.77%
Ashanti Main E	11	E21	273	275	278	281	284	287	290	292	295	298	301	1.00%
Ashanti Nsuta	11	Mampong	122	124	125	127	129	130	132	133	135	137	138	1.22%
Ashanti Nsuta	11	Nsuta	39	40	42	44	46	48	50	53	55	58	60	4.51%
Ashanti Agona	33	Kumawu	130	133	137	141	145	149	153	157	161	166	170	2.78%
Ashanti Agona	33	Nsuta	209	214	220	227	233	239	246	253	260	267	274	2.78%
Ashanti Kongo	11	Konongo	170	174	179	184	189	194	200	205	211	217	223	2.78%
Ashanti Kongo	11	Agogo	100	100	103	106	109	112	115	118	122	125	128	2.78%
Ashanti Kongo	11	Odumasi	77	79	81	84	86	88	91	93	96	99	101	2.78%
Ashanti Effiduase	11	Ejisu	112	115	118	122	125	128	132	136	139	143	147	2.78%
Ashanti Effiduase	11	Effiduase	74	76	78	80	83	85	87	90	92	95	97	2.78%
Ashanti Kokofu	11	Kokofu	71	75	81	86	92	99	106	113	121	129	138	6.95%
Ashanti Kokofu	11	Package	20	21	22	21	22	23	23	24	24	25	26	2.78%
Ashanti Kokofu	11	Water Works	41	43	45	47	49	51	54	56	59	61	64	4.63%
Ashanti Obuasi	11	Tutuka	206	211	217	223	229	236	242	249	256	263	270	2.78%
Ashanti Obuasi	11	New Edubiase	95	97	100	103	106	108	111	115	118	121	124	2.78%
Ashanti Obuasi	11	Fomena	278	285	293	301	310	318	327	336	346	355	365	2.78%
Ashanti Obuasi	11	Stadium	97	99	102	105	108	111	114	117	120	124	127	2.78%
Central Winneba	11	WINNEBA	402	425	450	476	504	533	564	596	631	668	706	5.79%
Central Winneba	11	SWEDRU 1	191	196	202	208	215	221	228	234	241	249	256	3.00%
Central Winneba	11	SWEDRU 2	289	298	308	318	328	339	350	361	373	385	397	3.22%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Central Winneba	11	APAM	126	133	140	147	154	162	171	180	189	199	209	5.17%
Central Saltpond	11	Saltpond	50	53	56	59	62	66	70	74	78	83	87	5.76%
Central Saltpond	11	Mankessim	124	131	138	145	153	161	169	178	187	197	208	5.29%
Central Saltpond	11	Anomabo	40	43	45	48	50	53	56	60	63	67	71	5.85%
Central Cape Coast	33	PRASO	57	60	64	68	72	76	80	85	90	95	100	5.76%
Central Cape Coast	33	SALTPOND/FOSU	197	209	221	234	248	263	279	296	313	332	352	5.06%
Central Cape Coast	33	FOSU	118	123	130	136	143	150	157	165	173	182	191	4.97%
Central Cape Coast	33	SALTPOND	91	96	102	108	114	121	128	135	143	151	160	5.81%
Central Cape Coast	11	ELMINA	340	361	384	408	433	460	489	519	552	586	623	6.24%
Central Cape Coast	11	RIGDES	127	134	142	150	159	168	178	188	199	211	223	5.80%
Central Cape Coast	11	TOWN 1	88	92	95	99	102	106	110	114	119	123	128	3.79%
Central Cape Coast	11	TOWN 2	339	347	356	366	375	385	395	405	415	426	437	2.59%
Central Cape Coast	11	TOWN 3	164	174	174	179	184	189	194	199	205	211	216	2.77%
Eastern Koforidua	33	Tafu - 33kV	224	233	242	251	260	270	280	291	302	313	325	3.79%
Eastern Koforidua	11	11kV Incomer	585	600	615	631	648	665	682	699	718	736	755	2.59%
Eastern Koforidua	11	Power House	149	153	157	162	166	171	176	181	186	191	196	2.78%
Eastern Koforidua	11	Estate Junction	148	157	166	176	186	197	208	220	233	246	261	5.82%
Eastern Koforidua	11	St. Joseph	67	68	69	70	71	72	73	74	75	76	77	1.42%
Eastern Koforidua	11	Acra Rd	206	210	214	218	223	227	232	236	241	246	250	1.97%
Eastern Koforidua	11	Old Estate	92	97	103	109	115	122	129	137	145	153	162	5.82%
Eastern Koforidua	33	Akwatia - 33kV	177	178	178	179	180	181	182	183	184	184	185	0.47%
Eastern Oda	11	11kV Incomer	376	408	442	479	519	562	609	660	715	775	840	8.37%
Eastern Oda	11	Oda Town	121	123	124	126	128	129	131	132	134	136	137	1.23%
Eastern Oda	11	Sawmill	95	101	107	113	119	126	134	141	150	158	168	5.82%
Eastern Oda	11	Achiase	119	123	127	130	134	138	142	146	150	155	159	2.93%
Eastern Nkwakaw	33	Nkwakaw-33kV	97	99	102	105	108	111	114	117	120	123	127	2.74%
Eastern Nkwakaw	33	New Abirem	71	71	71	72	72	72	72	72	72	73	73	0.22%
Eastern Nkwakaw	33	Donkorikrom	21	22	23	24	24	25	26	28	29	30	33	4.74%
Eastern Nkwakaw	33	Enyiesi	7	8	8	9	9	10	10	11	12	12	13	5.82%
Eastern Nkwakaw	11	14FI	704	708	711	715	719	723	727	731	735	739	743	0.54%
Eastern Nkwakaw	11	11kV Incomer	259	260	261	262	262	263	264	265	266	267	268	0.34%
Eastern Nkwakaw	11	Mountains	267	284	303	323	345	368	392	418	446	476	508	6.65%
Eastern Nkwakaw	11	Nkwakaw Town	202	215	228	243	258	275	292	311	330	351	373	6.34%
Eastern Nkwakaw	11	Novorex	56	59	63	66	70	74	79	83	88	93	99	5.82%
Eastern Akwatia	33	16F2	237	251	265	281	297	314	333	352	373	394	417	5.82%
Eastern Akwatia	33	Oda	177	178	178	179	180	181	182	183	184	184	185	0.47%
Eastern Akwatia	11	*16F3	138	146	154	163	172	183	193	204	216	229	242	5.82%
Eastern Akwatia	11	11kV Incomer	182	171	181	192	203	215	227	241	255	269	285	5.82%
Eastern Akwatia	11	Akwatia	156	159	163	166	169	173	176	180	184	187	191	2.05%
Eastern Akwatia	11	Asamankese	156	164	171	179	188	197	206	216	226	236	247	4.70%
Eastern Tafo	33	15F2	224	225	225	225	225	226	226	226	226	227	227	0.12%
Eastern Tafo	33	Koforidua	224	233	242	251	260	270	280	291	302	313	323	3.79%
Eastern Tafo	33	Asesewa	19	20	20	20	21	21	21	22	22	22	23	1.84%
Eastern Tafo	11	15F1	521	544	567	591	617	643	671	700	730	761	793	4.29%
Eastern Tafo	11	Tafu	264	278	293	309	326	344	363	383	404	426	450	5.48%
Eastern Tafo	11	Kibi/Suhum	216	228	240	253	266	280	295	311	328	345	364	5.33%
Tema A	33	A-1	90	95	101	107	113	120	127	135	143	152	161	5.96%
Tema A	33	A-2	70	74	79	83	88	94	99	105	111	118	125	5.96%
Tema A	11	A21	160	170	180	190	202	214	226	240	254	269	286	5.96%
Tema A	11	A31	250	265	281	297	315	334	354	375	397	421	446	5.96%
Tema A	11	A41	50	53	56	59	63	67	71	75	79	84	89	5.96%
Tema A	11	A61	140	148	157	167	176	187	198	210	223	236	250	5.96%
Tema A	11	A71	280	297	314	333	353	374	396	420	445	472	500	5.96%
Tema A	11	A81	50	53	56	59	63	67	71	75	79	84	89	5.96%
Tema A	11	A91	120	127	135	143	151	160	170	180	191	202	214	5.96%
Tema B	11	B31	220	233	247	262	277	294	311	330	350	370	393	5.96%
Tema B	11	B41/71	130	138	146	155	164	174	184	195	207	219	232	5.96%
Tema B	11	B51	55	58	62	65	69	73	78	82	87	93	98	5.96%
Tema B	11	B91	200	212	225	238	252	267	283	300	318	337	357	5.96%

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Tema B	11	B101	100	106	112	119	126	134	142	150	159	168	178	5.96%
Tema B	11	B111	300	318	337	357	378	401	425	450	477	505	535	5.96%
Tema B	33	B.Y1	180	191	202	214	227	240	255	270	286	303	321	5.96%
Tema B	33	B.Y2	130	138	146	155	164	174	184	195	207	219	232	5.96%
Tema D	33	D-A1	290	307	326	345	366	387	410	435	461	488	518	5.96%
Tema D	33	D-A2 (U/C)	0	0	0	0	0	0	0	0	0	0	0	5.96%
Tema D	33	D-E1	105	111	118	125	132	140	149	157	167	177	187	5.96%
Tema D	33	D-E2	101	107	113	120	127	135	143	151	161	170	180	5.96%
Tema D	11	GHACEM	240	254	269	286	303	321	340	360	381	404	428	5.96%
Tema D	11	AGRONA	220	233	247	262	277	294	311	330	350	370	393	5.96%
Tema D	11	LUBE OIL	200	212	225	238	252	267	283	300	318	337	357	5.96%
Tema D	11	F/H # 1	70	74	79	83	88	94	99	105	111	118	123	5.96%
Tema D	11	PFC	120	127	135	143	151	160	170	180	191	202	214	5.96%
Tema D	11	F/H # 2	240	254	269	286	303	321	340	360	381	404	428	5.96%
Tema D	11	ASASEWA	125	132	140	149	158	167	177	187	199	211	223	5.96%
Tema D	11	PSC Ship Yard	70	74	79	83	88	94	99	105	111	118	123	5.96%
Tema E	33	E-G.P.H.A	17	18	19	20	21	23	24	25	27	29	30	5.96%
Tema E	11	E11	110	117	124	131	139	147	156	165	175	185	196	5.96%
Tema E	11	E21	320	339	359	381	403	427	453	480	509	539	571	5.96%
Tema E	11	G.T.M.C	80	85	90	95	101	107	113	120	127	135	143	5.96%
Tema S	11	S31 (AFARIWA)	280	297	314	333	353	374	396	420	445	472	500	5.96%
Tema S	11	S41 (COMMUNITY 22)	80	85	90	95	101	107	113	120	127	135	143	5.96%
Tema S	11	S61 (OFFICIAL TOWN)	100	106	112	119	126	134	142	150	159	168	178	5.96%
Tema S	11	S91 (NEW TOWN)	200	212	225	238	252	267	283	300	318	337	357	5.96%
Tema L	11	KLAGON	117	124	131	139	147	156	166	175	186	197	209	5.96%
Tema L	11	COMMIZO	160	170	180	190	202	214	226	240	254	269	286	5.96%
Tema L	11	NUNGUWA	283	310	329	349	369	391	415	439	466	493	523	5.96%
Tema L	11	Vivian Farm	106	112	119	126	134	142	150	159	168	179	189	5.96%
Tema H	33	H-A1	290	307	326	345	366	387	410	435	461	488	518	5.96%
Tema H	33	H-B1	370	392	415	440	466	494	524	555	588	623	660	5.96%
Tema H	33	H-B2	385	408	432	458	485	514	545	577	612	648	687	5.96%
Tema H	33	H-E1	75	79	84	89	95	100	106	112	119	126	134	5.96%
Tema H	33	H-E2	74	74	79	83	88	94	99	105	111	118	125	5.96%
Tema H	33	STLWKS	90	95	101	107	113	120	127	135	143	152	161	5.96%
Tema H	33	WAHOME	146	155	164	174	184	195	207	219	232	246	261	5.96%
Tema H	11	Kpone Garages	150	159	168	178	189	200	212	225	238	253	268	5.96%
Tema H	11	Slaughter Hse	60	64	67	71	76	80	85	90	95	101	107	5.96%
Tema H	11	T.O.R	200	212	225	238	252	267	283	300	318	337	357	5.96%
Tema H	11	Ernest Chemist	240	254	269	286	303	321	340	360	381	404	428	5.96%
Tema H	11	Prampram	220	233	247	262	277	294	311	330	350	370	393	5.96%
Tema H	11	Nestle	320	339	359	381	403	427	453	480	509	539	571	5.96%
Tema H	11	Western Casting	309	327	347	368	390	413	437	463	491	520	551	5.96%
Tema H	33	H FERROFAB	150	159	168	178	189	200	212	225	238	253	268	5.96%
Tema H	33	H Ashiaman1	255	270	286	303	321	341	361	382	405	429	455	5.96%
Tema H	33	H Ashiaman2	0	0	0	0	0	0	0	0	0	0	0	5.96%
Tema H	33	H-TTL	20	21	22	24	25	27	28	30	32	34	36	5.96%
Tema K	11	Akwamufie	60	64	67	71	76	80	85	90	95	101	107	5.96%
Tema K	33	Okwenya	20	21	22	24	25	27	28	30	32	34	36	5.96%
Tema K	33	Juapong	32	34	36	38	40	43	45	48	51	54	57	5.96%
Tema K	11	Asutsuare	42	45	47	50	53	56	59	63	67	71	75	5.96%
Tema K	11	Military Camp	10	11	11	12	13	14	15	16	17	18	18	5.96%
Tema K	11	Krobo Area	258	273	290	307	325	345	365	387	410	434	460	5.96%
Tema K	11	Old Works	60	64	67	71	76	80	85	90	95	101	107	5.96%
Tema K	11	Kpong	22	23	24	26	27	28	30	31	33	34	36	5.96%
Tema K	33	Abor-Ave Dzalele	50	53	56	58	61	65	68	71	75	79	83	5.96%
Tema K	33	Incomer	88	93	97	102	108	113	119	125	131	138	145	5.96%
Tema K	11	Incomer	163	171	180	189	198	208	219	230	242	254	267	5.96%
Tema K	11	Denu	121	127	133	140	147	155	162	171	179	188	198	5.96%
Tema K	11	Aflao	42	44	46	49	51	54	57	59	62	66	69	5.96%
Tema K	11	F1 - HO POLY-SOKODE-MATSE	138	145	152	160	168	176	185	194	204	215	226	5.96%
Tema K	11	F2 - HO CENTRAL	172	181	190	200	210	221	232	243	256	269	282	5.96%

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Volta Ho	11	F3 - HO - TANYIGBE - KPETOE	185	194	204	214	225	237	249	261	274	288	303	5.06%
Volta Ho	11	F4 - REGIONAL HOSPITAL	24	25	27	28	29	31	32	34	36	38	40	5.06%
Volta Ho	11	INGOMER	0	0	0	0	0	0	0	0	0	0	0	5.06%
Volta Ho	11	INGOMER	436	458	481	506	531	558	586	616	647	680	714	5.06%
Volta Kpeve	33	TSITO - AMEDZOPE	50	53	56	58	61	65	68	71	75	79	83	5.06%
Volta Kpeve	11	HAVE	17	18	19	19	20	22	23	24	25	26	28	5.06%
Volta Kpeve	11	GWCL	82	86	90	95	99	104	110	115	121	127	133	4.98%
Volta Kpeve	11	KPEVE TOWNSHIP	44	46	49	51	54	56	59	62	65	68	72	5.06%
Volta Kpando	33	NKONYA	19	20	21	22	23	24	25	27	29	29	31	5.06%
Volta Kpando	33	HOF	134	141	148	156	164	172	181	190	200	210	220	5.06%
Volta Kpando	33	INGOMER	204	214	225	236	248	261	274	288	303	318	334	5.06%
Volta Kpando	11	INGOMER	134	147	161	176	193	212	233	255	280	307	336	9.66%
Volta Kpando	11	KPANDO	76	80	84	88	92	97	102	107	113	119	125	5.14%
Volta Kpando	11	SOVIE	61	64	67	71	74	78	82	86	90	95	100	5.06%
Volta Sogakope	33	ADIDOME	8	9	9	10	10	11	11	12	12	13	14	5.06%
Volta Sogakope	33	ADA	49	52	55	58	61	64	67	71	75	79	83	5.27%
Volta Sogakope	33	SOGAKOPE - AKATSII - KETA	172	177	183	189	194	200	207	213	219	226	233	3.08%
Volta Tsito	11	TSITO - TOWNSHIP	15	15	16	17	18	19	19	21	22	23	24	5.06%
Volta Tsito	11	ADULT COLLEGE	2	2	2	2	3	3	3	3	3	3	3	5.06%
Volta Tsito	11	PEKI	74	77	81	85	90	94	99	104	109	115	120	5.06%
Volta Tsito	11	INGOMING	80	84	88	93	97	102	107	113	119	125	131	5.06%
Western sub	33	SEKONDI	1,007	1,046	1,086	1,128	1,171	1,217	1,263	1,312	1,362	1,415	1,469	3.85%
Western sub	33	TARKWA	909	944	980	1,018	1,057	1,097	1,140	1,183	1,229	1,276	1,325	3.85%
Western sub	33	ASAWINSO	493	512	532	552	574	596	619	642	667	693	719	3.85%
Western sub	33	ESIAMA	115	124	133	144	155	166	178	193	207	223	240	7.83%
Western sub	33	BOGOSO	90	91	91	91	91	91	92	92	92	92	92	0.21%
Western stn A	33	VRA 1	552	574	596	619	642	667	693	720	747	776	806	3.85%
Western stn A	33	VRA 2	497	517	536	557	578	601	624	648	673	699	725	3.85%
Western stn A	33	TDI 2 (CCT 1)	415	431	448	465	483	502	521	541	562	583	606	3.85%
Western stn A	33	TDI 2 (CCT 2)	242	245	249	252	255	258	262	265	268	272	276	1.31%
Western stn A	33	TDI 3 (CCT 5)	277	288	299	311	322	335	348	361	375	389	404	3.85%
Western stn A	33	DABOASE (CCT 3)	0	0	0	0	0	0	0	0	0	0	0	3.85%
Western stn A	33	DABOASE (CCT 4)	0	0	0	0	0	0	0	0	0	0	0	3.85%
Western stn A	11	A09	79	82	85	88	92	95	99	103	107	111	115	3.85%
Western stn A	11	A10	291	302	314	326	338	351	365	379	393	408	424	3.85%
Western stn A	11	A13	197	205	213	221	229	238	247	257	267	277	288	3.85%
Western stn A	11	A31	343	356	370	384	399	414	430	446	463	481	500	3.85%
Western stn A	11	A41	332	345	358	372	386	401	417	433	449	467	485	3.85%
Western stn A	11	A44	135	140	146	151	157	163	169	176	183	190	197	3.85%
Western stn A	11	A55	275	302	332	365	402	442	486	534	588	646	710	9.96%
Western stn A	11	A57	102	106	110	114	118	123	128	133	138	143	148	3.85%
Western stn B	11	B01	10	11	11	12	12	13	13	14	14	15	15	3.85%
Western stn B	11	B09	114	119	123	128	133	138	143	149	154	160	167	3.85%
Western stn B	11	B11	114	119	123	128	133	138	143	149	154	160	167	3.85%
Western stn B	11	B21	280	291	302	314	326	339	352	365	379	394	409	3.85%
Western stn B	11	B32	498	518	538	558	580	602	625	649	674	700	727	3.85%
Western stn B	11	B41	218	226	235	244	254	263	273	284	295	306	318	3.85%
Western stn B	11	B51	294	321	349	381	415	452	493	537	585	638	695	8.98%
Western stn B	11	B52	312	324	336	349	362	376	391	406	421	438	454	3.85%
Western stn B	11	B67	130	135	140	145	151	157	163	169	176	182	189	3.85%
Western stn B	11	B71	407	424	442	461	481	502	523	546	569	594	619	4.29%
Western stn B	11	B81	182	189	196	204	211	219	228	237	246	255	265	3.85%
Western stn B	11	B87	228	237	246	256	266	276	287	298	309	321	333	3.85%
Western stn C	33	AGONA	48	51	54	57	60	63	66	70	74	78	82	5.39%
Western stn C	11	C01	270	280	291	302	314	326	339	352	365	379	394	3.85%
Western stn C	11	C02	145	151	157	163	169	176	182	189	197	204	212	3.85%
Western stn C	11	C08	228	237	246	256	266	276	287	298	309	321	333	3.85%
Western stn C	11	C10	296	319	344	371	399	431	467	507	551	600	654	8.35%
Western	33	Aboso1	262	272	283	293	305	316	329	341	354	368	382	3.85%
Western	33	Aboso2	294	305	317	329	342	355	369	383	396	413	429	3.85%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Western	33	Tamso	50	336	1,599	1,055	697	460	303	200	132	87	58	1.43%
Western	33	Teberbe1	241	290	280	270	280	291	302	314	326	339	352	3.85%
Western	33	Teberbe2	125	129	134	140	145	151	156	162	169	175	181	3.85%
Western	11	Mangane	300	312	324	336	349	362	376	391	406	421	438	3.85%
Western	11	Town1	30	247	970	625	424	288	195	133	90	61	41	3.28%
Western	11	Town2	190	197	205	213	221	230	238	248	257	267	277	3.85%
Western	33	Line1	246	255	265	276	286	297	309	320	333	346	359	3.85%
Western	33	Line2	294	305	317	329	342	355	369	383	398	413	429	3.85%
Western	11	Aboso Town	57	439	2,238	1,516	1,027	695	471	216	146	100	66	5.69%
Western	11	Power House	11	12	12	12	13	13	14	14	15	15	16	3.85%
Western	11	Court Area/Hospital	89	92	96	100	104	108	112	116	120	125	130	3.85%
Western	11	Line1	85	88	92	95	99	103	107	111	115	119	124	3.85%
Western	33	Line1	98	102	106	110	114	118	123	128	133	138	143	3.85%
Western	11	Line1	241	250	260	270	280	291	302	314	326	339	352	3.85%
Western	11	Line1	241	250	260	270	280	291	302	314	326	339	352	3.85%
Western	11	Line1	177	184	191	198	206	214	222	231	239	249	258	3.85%
Western	33	Half Assini	71	74	77	80	83	86	89	92	96	100	104	3.85%
Western	33	NKROFUL/Station C	35	36	38	39	41	42	44	46	47	49	51	3.85%
Western	11	Awoso Town	152	158	164	170	177	184	191	198	206	214	222	3.85%
Western	11	Power House	70	596	3,368	2,328	1,609	1,112	769	531	367	254	175	9.62%
Western	11	Kakokrom	88	91	95	99	102	106	110	115	119	124	128	3.85%
Western	33	Chirano Mines	126	131	136	141	147	152	158	164	170	177	184	3.85%
Western	33	Wiaso/Awaso	153	159	165	171	178	185	192	199	207	215	223	3.85%
Western	33	Denkyera Obuzasi	7	7	8	8	8	8	9	9	9	10	10	3.85%
Western	33	Jejetreso	4	4	4	4	5	5	5	5	5	6	6	3.85%
Western	11	Line1	1	1	1	1	1	1	1	1	1	1	1	3.85%
Western	11	Line1	1	1	1	1	1	1	1	1	1	1	1	3.85%
Western	11	Old Town	72	514	2,929	1,964	1,317	883	592	397	266	179	120	5.23%
Western	11	Pit Site	34	35	37	38	40	41	43	44	46	48	50	3.85%
Western	11	Gyedi/town	72	75	78	81	84	87	90	94	97	101	105	3.85%
Accra West	11	A16	164	172	180	189	198	208	218	229	240	252	264	4.90%
Accra West	11	A01	498	516	535	555	576	597	619	642	666	691	717	3.71%
Accra West	11	A120	501	530	560	592	626	662	700	741	783	828	876	5.74%
Accra West	11	A61	489	499	508	518	528	538	549	559	570	581	592	1.93%
Accra West	11	A18	95	100	105	110	116	121	127	133	140	147	154	4.90%
Accra West	11	A13	265	278	292	306	321	337	354	371	389	408	428	4.90%
Accra West	11	B19	350	361	371	383	394	406	418	431	444	457	470	3.00%
Accra West	11	B15	355	370	386	403	421	439	458	478	499	520	543	4.35%
Accra West	11	B20	215	226	237	248	260	273	287	301	315	331	347	4.90%
Accra West	11	B24	311	311	312	313	314	314	315	316	316	317	318	0.23%
Accra West	11	B28	363	386	410	437	464	494	525	559	594	632	673	6.37%
Accra West	11	B27	356	384	415	447	483	521	562	607	655	707	762	7.91%
Accra West	11	B25	273	286	300	315	330	346	363	381	400	419	440	4.90%
Accra West	11	B42	287	300	314	329	344	361	378	395	414	433	453	4.89%
Accra West	11	B35	210	220	231	242	254	266	280	293	308	323	338	4.90%
Accra West	11	ABC 1	83	87	91	96	100	105	110	116	121	127	134	4.90%
Accra West	11	ABC 2	372	393	417	441	467	494	523	554	587	621	658	5.88%
Accra West	11	ABC 3	302	303	305	307	308	310	312	314	315	317	319	0.55%
Accra West	11	C60	336	352	369	387	405	425	446	467	490	514	539	4.85%
Accra West	11	C20	352	374	397	422	449	477	507	539	573	609	647	6.28%
Accra West	11	CD51	351	364	378	393	408	423	440	457	474	492	511	3.83%
Accra West	11	C13	360	365	371	376	381	387	392	398	404	410	415	1.44%
Accra West	11	C140	371	387	404	421	439	458	478	498	520	542	565	4.29%
Accra West	11	D01	280	294	308	323	339	356	373	391	411	431	452	4.90%
Accra West	11	D114	341	341	342	342	343	343	344	344	345	346	346	0.16%
Accra West	11	D103	388	396	404	412	420	429	438	447	456	465	474	2.04%
Accra West	11	D101	395	404	416	428	440	452	464	477	490	503	517	2.74%
Accra West	11	Panel 10	367	385	404	424	445	466	489	513	538	565	592	4.90%
Accra West	11	D16	428	465	504	548	595	646	701	762	827	898	975	8.59%

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Accra West	11	D123	294	308	323	339	356	373	391	410	431	452	474	4.90%
Accra West	11	D24	253	265	278	292	306	321	337	353	371	389	408	4.90%
Accra West	11	D150	283	297	312	327	343	360	377	396	415	436	457	4.90%
Accra West	11	A/W - Region	52	55	58	61	64	67	70	73	77	81	85	4.90%
Accra West	11	E08	328	341	355	370	385	401	418	435	453	471	490	4.90%
Accra West	11	E07	357	374	392	412	432	453	475	498	523	548	575	4.90%
Accra West	11	EG14	281	303	327	353	381	412	444	480	518	559	603	7.95%
Accra West	11	E20	226	237	248	260	273	286	300	315	331	347	364	4.90%
Accra West	11	E26	153	161	169	177	185	195	204	214	225	236	247	4.90%
Accra West	11	E41	73	77	81	85	89	93	98	103	108	113	118	4.90%
Accra West	11	ABL 1	105	110	115	121	127	133	140	147	154	161	169	4.90%
Accra West	11	ABL 2	98	102	107	113	118	124	130	136	143	150	157	4.90%
Accra West	11	E150	283	297	312	327	343	360	377	396	415	436	457	4.90%
Accra West	11	F11	210	220	231	242	254	266	280	293	308	323	338	4.90%
Accra West	11	F01	241	253	265	278	292	306	321	337	354	371	389	4.90%
Accra West	11	G25	325	341	358	375	394	413	433	454	477	500	525	4.90%
Accra West	11	G32	190	199	209	219	230	241	253	265	278	292	306	4.90%
Accra West	11	G56	252	264	277	291	305	320	335	352	369	387	406	4.90%
Accra West	11	G05	168	176	185	194	203	213	224	235	246	258	271	4.90%
Accra West	11	GE19	231	242	254	266	279	293	307	323	338	355	372	4.90%
Accra West	11	Nsawm-Accra	273	286	300	315	330	346	363	381	400	419	440	4.90%
Accra West	11	Township	77	80	84	88	93	97	102	107	112	118	124	4.90%
Accra West	11	Adoagyiri	241	253	265	278	292	306	321	337	354	371	389	4.90%
Accra West	11	R13	178	187	196	206	216	226	238	249	261	274	288	4.90%
Accra West	11	R12	299	309	319	330	340	351	363	375	387	400	413	4.90%
Accra West	11	R11	294	308	323	339	356	373	391	410	431	452	474	4.90%
Accra West	11	R10	78	81	85	90	94	99	103	108	114	119	125	4.90%
Accra West	11	R05	179	188	197	207	217	228	239	251	263	276	289	4.90%
Accra West	11	R04	161	168	176	183	192	200	209	219	228	239	249	4.48%
Accra West	11	R03	210	220	231	242	254	266	280	293	308	323	338	4.90%
Accra West	11	S02	215	226	237	248	260	273	287	301	315	331	347	4.90%
Accra West	11	S03	309	324	339	356	373	390	409	429	449	471	493	4.78%
Accra West	11	S04	222	233	245	257	269	282	296	311	326	342	359	4.90%
Accra West	11	S10 and S11	415	421	426	432	438	444	449	455	461	467	474	1.32%
Accra West	11	S11	173	182	191	200	210	220	231	242	254	266	279	4.90%
Accra West	11	V02	291	305	320	335	352	369	387	406	426	447	469	4.90%
Accra West	11	V03	263	276	290	304	319	334	351	368	386	405	425	4.90%
Accra West	11	V04	170	178	187	196	206	216	226	237	249	261	274	4.90%
Accra West	11	V10	477	501	527	555	584	614	646	679	715	752	791	5.20%
Accra West	11	V11	275	288	302	317	333	349	366	384	403	423	443	4.90%
Accra West	11	Tuba	210	220	231	242	254	266	280	293	308	323	338	4.90%
Accra West	11	Radio	414	435	456	478	502	526	552	579	607	637	668	4.90%
Accra West	33	Dansoman	463	486	511	537	564	593	623	655	689	724	761	5.10%
Accra West	33	Awoshie 1	517	552	589	628	671	716	764	816	871	929	992	6.74%
Accra West	33	Bubuashie	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Awoshie 2	517	552	589	628	671	716	764	816	871	929	992	6.74%
Accra West	33	Laterbiokoshie	613	671	733	801	876	958	1,047	1,145	1,251	1,368	1,495	9.32%
Accra West	33	Korle bu	396	407	419	431	443	456	469	482	496	510	525	2.85%
Accra West	33	Mataheko	409	423	437	451	466	482	498	514	532	549	567	3.32%
Accra West	33	Bubuashie	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Achimota 2	669	702	737	773	811	850	892	936	981	1,030	1,080	4.90%
Accra West	33	Quary 2	277	291	305	320	335	352	369	387	406	426	447	4.90%
Accra West	33	Achimota 1	664	696	730	766	804	843	884	928	973	1,021	1,071	4.90%
Accra West	33	Nsawam	443	458	474	489	506	523	540	558	577	596	616	3.34%
Accra West	33	Quary 1	289	303	318	333	349	367	384	403	423	444	466	4.90%
Accra West	33	Avenor 2	635	666	699	733	769	806	846	887	931	976	1,024	4.90%
Accra West	33	Avenor 1	641	672	705	739	776	814	854	895	939	985	1,033	4.90%
Accra West	33	Afajo 1	1,108	1,162	1,219	1,279	1,342	1,407	1,476	1,549	1,624	1,704	1,788	4.90%

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Accra West	33	Alajo 2	1,085	1,138	1,194	1,252	1,314	1,378	1,446	1,516	1,591	1,669	1,750	4.90%
Accra West	33	Kokomlemle	646	709	779	855	938	1,030	1,130	1,241	1,362	1,495	1,641	9.77%
Accra West	33	Laterbiokoshie	739	775	813	853	894	938	984	1,032	1,083	1,136	1,192	4.90%
Accra West	33	Korobabi 2	639	701	768	842	922	1,011	1,108	1,214	1,331	1,459	1,599	9.60%
Accra West	33	Korobabi 1	570	614	663	715	771	831	897	967	1,043	1,125	1,214	7.86%
Accra West	33	Okaishie1	460	482	504	527	551	577	603	631	660	691	722	4.61%
Accra West	33	Adabraka	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Avenor 1	528	563	600	640	682	728	776	827	882	940	1,003	6.82%
Accra West	33	Avenor 2	487	514	542	571	602	635	669	706	744	785	827	5.44%
Accra West	33	Okaishie 2	434	451	468	486	504	524	546	569	596	629	662	3.82%
Accra West	33	Kokomlemle	597	648	704	764	829	900	977	1,060	1,151	1,249	1,356	8.54%
Accra West	33	Adabraka	185	194	203	213	224	235	246	258	271	284	298	4.90%
Accra West	33	Okaishie 1	434	451	468	486	504	524	546	569	596	629	662	3.82%
Accra West	33	Ringway	473	495	519	544	570	597	626	656	687	720	754	4.78%
Accra West	33	Korfe-Bu	312	327	343	360	377	396	415	436	457	479	503	4.90%
Accra West	33	Okaishie 2	540	576	615	656	700	746	796	850	907	967	1,032	6.89%
Accra West	33	Kinbu	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Achimota 1	693	726	762	799	839	880	923	968	1,015	1,065	1,117	4.90%
Accra West	33	Achimota 2	635	666	699	733	769	806	846	887	931	976	1,024	4.90%
Accra West	33	Alajo 1	1,108	1,162	1,219	1,279	1,342	1,407	1,476	1,549	1,624	1,704	1,788	4.90%
Accra West	33	Alajo 2	1,097	1,150	1,207	1,266	1,328	1,393	1,461	1,533	1,608	1,686	1,769	4.90%
Accra West	33	Mamobi 1	585	635	689	748	812	881	956	1,037	1,126	1,222	1,326	8.52%
Accra West	33	Mamobi 2	623	654	686	719	755	792	830	871	914	959	1,005	4.90%
Accra West	33	Mamobi	1,131	1,187	1,245	1,306	1,370	1,437	1,507	1,581	1,658	1,740	1,825	4.90%
Accra West	33	Legon	600	653	712	776	845	921	1,004	1,094	1,192	1,299	1,415	8.97%
Accra West	33	Adenta	693	726	762	799	839	880	923	968	1,015	1,065	1,117	4.90%
Accra West	33	Korobabi 1	640	701	769	843	925	1,014	1,112	1,219	1,337	1,466	1,608	9.66%
Accra West	33	Korobabi 2	689	702	737	773	811	850	892	936	981	1,030	1,080	4.90%
Accra West	33	Airport 1	1,039	1,090	1,143	1,199	1,258	1,319	1,384	1,452	1,523	1,598	1,676	4.90%
Accra West	33	Airport 2	791	829	870	913	957	1,004	1,053	1,105	1,159	1,216	1,275	4.90%
Accra West	33	Cantonment 1	388	397	406	416	425	435	445	455	465	476	487	2.29%
Accra West	33	Ringway	408	420	433	446	459	473	487	502	517	532	548	3.90%
Accra West	33	Mamobi 2	434	451	469	487	506	526	547	568	590	613	637	3.90%
Accra West	33	Mamobi 1	693	726	762	799	839	880	923	968	1,015	1,065	1,117	4.90%
Accra West	33	Mamobi 3	515	548	583	621	660	702	747	795	846	900	958	6.40%
Accra West	33	Cantonment 2	375	382	389	396	403	410	418	425	433	441	449	1.80%
Accra West	33	Ridge	289	303	318	333	349	367	384	403	423	444	466	4.90%
Accra West	33	T-Nungua 2	343	345	347	348	350	352	354	356	358	360	362	0.53%
Accra West	33	Cantonment 2	380	387	393	399	406	413	420	427	434	441	448	1.65%
Accra West	33	Cantonment 1	393	401	410	419	427	436	445	455	464	474	484	2.10%
Accra West	33	T-Nungua 1	380	386	393	399	405	412	419	426	432	439	447	1.62%
Accra West	33	Airport City 1	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Airport City 2	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Legon	595	644	696	753	815	882	954	1,032	1,116	1,207	1,306	8.17%
Accra West	33	Old Mampong	1	1	1	1	1	1	1	1	2	2	2	4.90%
Accra West	33	Nsawam to C	185	194	203	213	224	235	246	258	271	284	298	4.90%
Accra West	33	Wejia 1	1	1	1	1	1	1	1	1	2	2	2	4.90%
Accra West	33	Wejia 2	75	79	83	87	91	95	100	105	110	115	121	4.90%
Accra West	33	Teshie Nungua 1	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Teshie Nungua 2	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Baatsona 1	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Baatsona 2	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Ridge	597	649	704	765	830	901	978	1,062	1,153	1,252	1,360	8.57%
Accra West	33	Kinbu	231	242	254	266	280	293	308	323	338	355	372	4.90%
Accra West	33	Kwashieman 1	462	485	508	533	560	587	616	646	678	711	746	4.92%
Accra West	33	Quarry 1	277	291	305	320	335	352	369	387	406	426	447	4.90%
Accra West	33	Quarry 2	277	291	305	320	335	352	369	387	406	426	447	4.90%
Accra West	33	Kwashieman 2	462	485	509	534	561	589	618	649	681	715	750	4.97%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Accra West	33	Adenta	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Mampong	173	182	191	200	210	220	231	242	254	266	279	4.90%
Accra West	33	Old Mampong	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Dansoman	426	434	442	450	458	467	475	484	493	502	511	1.84%
Accra West	33	Mataheko	323	339	356	373	391	410	431	452	474	497	521	4.90%
Accra West	33	Mampong to T	185	194	202	213	224	235	246	258	271	284	298	4.90%
Accra West	33	Tema 1	405	413	422	431	440	450	459	469	479	489	500	2.13%
Accra West	33	Tema 2	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Baatsona 1	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Baatsona 2	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Kasoa	238	249	262	274	288	302	317	332	349	366	384	4.90%
Accra West	33	Wejia 1	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra West	33	Awoshie 1	533	561	591	622	655	689	726	764	804	847	891	5.28%
Accra West	33	Awoshie 2	573	610	649	690	734	781	830	883	939	999	1063	6.36%
Accra West	33	Kwashieman 1	196	206	216	226	236	249	261	274	288	302	317	4.90%
Accra West	33	Kwashieman 2	193	202	212	222	233	245	257	269	283	296	311	4.90%
Accra West	33	Wejia 1	323	339	356	373	391	410	431	452	474	497	521	4.90%
Accra West	33	Wejia 2	76	80	84	88	92	97	101	106	112	117	123	4.90%
Accra East	33	Kokomlele (F)	493	517	543	569	597	626	657	689	723	758	795	4.90%
Accra East	33	Adabraka (F)	356	373	391	410	431	452	474	497	521	547	574	4.90%
Accra East	33	Okaishie 1 (G)	399	418	439	460	483	506	531	557	584	613	643	4.90%
Accra East	33	Ringway (G)	538	590	646	708	776	850	931	1,021	1,118	1,225	1,343	9.58%
Accra East	33	Korle-Bu (G)	365	365	365	365	365	365	366	366	366	366	366	0.02%
Accra East	33	Okaishie 2 (G)	418	442	467	494	523	553	585	619	654	692	732	5.77%
Accra East	33	Kinbu (G)	377	395	414	435	456	478	502	526	552	579	607	4.90%
Accra East	33	Achimota 1 (H)	624	648	674	700	728	757	787	818	850	884	918	3.95%
Accra East	33	Achimota 2 (H)	514	539	566	593	622	653	685	718	754	790	829	4.90%
Accra East	33	Alajo 1 (H)	1,259	1,320	1,385	1,453	1,524	1,599	1,677	1,759	1,845	1,936	2,031	4.90%
Accra East	33	Alajo 2 (H)	1,112	1,166	1,224	1,283	1,346	1,412	1,481	1,554	1,630	1,710	1,794	4.90%
Accra East	33	Mamobi 1 (H)	948	995	1,043	1,095	1,148	1,204	1,263	1,325	1,390	1,458	1,530	4.90%
Accra East	33	Mamobi 2 (H)	623	654	686	719	755	792	830	871	914	959	1,005	4.90%
Accra East	33	Mamobi 3 (H)	1,131	1,187	1,245	1,306	1,370	1,437	1,507	1,581	1,658	1,740	1,825	4.90%
Accra East	33	Legon (H)	621	651	683	717	752	789	827	868	910	955	1,002	4.90%
Accra East	33	Adenta (H)	624	668	716	767	822	881	943	1,011	1,083	1,160	1,243	7.14%
Accra East	33	Kotobabi 1 (H)	561	605	653	704	760	819	884	945	1,029	1,110	1,197	7.88%
Accra East	33	Kotobabi 2 (H)	462	484	508	533	559	586	615	645	677	710	745	4.90%
Accra East	33	Airport 1 (H)	892	935	981	1,029	1,080	1,132	1,188	1,246	1,307	1,371	1,438	4.90%
Accra East	33	Airport 2 (H)	710	765	823	886	953	1,026	1,105	1,189	1,280	1,377	1,483	7.63%
Accra East	33	Cantonment 1 (K)	319	335	351	368	386	405	425	446	468	490	514	4.90%
Accra East	33	Ringway (K)	246	248	251	253	256	259	261	264	267	270	273	1.05%
Accra East	33	Mamobi 1 (K)	849	890	934	980	1,028	1,078	1,131	1,186	1,244	1,305	1,369	4.90%
Accra East	33	Mamobi 3 (K)	513	544	576	611	648	686	728	771	817	866	918	5.99%
Accra East	33	Cantonment 2 (K)	371	390	409	429	450	472	495	519	544	571	599	4.90%
Accra East	33	Ridge (K)	397	404	412	420	427	435	443	451	460	468	477	1.84%
Accra East	33	T-Nungua 2 (L)	367	374	382	389	397	405	413	421	429	438	447	1.98%
Accra East	33	Cantonment 2 (L)	291	303	315	327	340	354	368	382	397	413	430	3.97%
Accra East	33	Cantonment 1 (L)	472	495	519	545	572	600	629	660	692	726	761	4.90%
Accra East	33	T-Nungua 1 (L)	304	319	335	351	368	386	405	425	446	468	491	4.90%
Accra East	33	Airport City 1 (L)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	33	Airport City 2 (L)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	33	Legon (M)	605	635	666	699	733	769	806	846	887	931	976	4.90%
Accra East	33	Old Mampong (M)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	33	Teshie Nungua 1 (Q)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	33	Teshie Nungua 2 (Q)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	33	Baatsona 1 (Q)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	33	Baatsona 2 (Q)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	33	Adenta (T)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	33	Mampong (T)	338	354	372	390	409	429	450	472	495	519	545	4.90%
Accra East	33	Old Mampong (T)	330	347	364	381	400	420	440	462	484	508	533	4.90%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Accra East	33	Mampong to T (W)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	33	Tema 1 (Y)	396	426	459	494	531	572	615	662	712	766	825	7.61%
Accra East	33	Tema 2 (Y)	433	454	477	500	525	550	577	605	635	666	699	4.90%
Accra East	33	Baatsona 1 (Y)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	33	Baatsona 2 (Y)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	11	F15(FK02)	331	348	365	383	401	421	442	463	486	510	535	4.90%
Accra East	11	F11(FD19)	352	373	395	417	442	467	495	523	554	586	620	5.81%
Accra East	11	F10(FD42)	253	268	283	298	315	333	351	371	392	414	437	5.59%
Accra East	11	F06(F11)	210	220	231	242	254	266	280	293	308	323	338	4.90%
Accra East	11	F05(F01)	241	253	265	278	292	306	321	337	354	371	389	4.90%
Accra East	11	F04(FD48)	284	277	281	306	320	336	352	369	388	407	426	4.90%
Accra East	11	F03(FD38)	273	286	300	315	330	346	363	381	400	419	440	4.90%
Accra East	11	F13(FK01)	114	120	126	132	138	145	152	160	168	176	184	4.90%
Accra East	11	G21(G25)	325	341	358	375	394	413	433	454	477	500	525	4.90%
Accra East	11	G19(G60)	315	330	346	363	381	400	419	440	461	484	508	4.90%
Accra East	11	G18(G32)	190	199	209	219	230	241	253	265	278	292	306	4.90%
Accra East	11	G08(G64)	283	297	312	327	343	360	377	396	415	436	457	4.90%
Accra East	11	G12(G47)	296	302	308	314	320	326	333	339	346	353	360	1.97%
Accra East	11	G02(G33)	273	286	300	315	330	346	363	381	400	419	440	4.90%
Accra East	11	G07(G06)	226	237	248	260	273	286	300	315	331	347	364	4.90%
Accra East	11	G13(G56)	252	264	277	291	305	320	335	352	369	387	406	4.90%
Accra East	11	G05	168	176	185	194	203	213	224	235	246	258	271	4.90%
Accra East	11	G04(G351)	252	264	277	291	305	320	335	352	369	387	406	4.90%
Accra East	11	G03(GE19)	231	242	254	266	279	293	307	323	338	355	372	4.90%
Accra East	11	G11(G13)	262	275	289	303	318	333	349	367	384	403	423	4.90%
Accra East	11	H02(H351)	401	415	430	446	462	479	496	514	532	552	571	3.61%
Accra East	11	H04(H07)	278	292	306	321	337	353	370	388	408	427	448	4.90%
Accra East	11	H05(H06)	319	335	351	368	386	405	425	446	468	490	514	4.90%
Accra East	11	H07(H35)	257	270	283	297	311	326	342	359	377	395	415	4.90%
Accra East	11	H08(H24)	295	309	324	340	357	374	393	412	432	453	476	4.90%
Accra East	11	H10(H10)	294	308	323	339	356	373	391	410	431	452	474	4.90%
Accra East	11	K03(K09)	220	231	242	254	267	280	293	308	323	339	355	4.90%
Accra East	11	K04(K10)	299	314	329	345	362	380	398	418	438	460	482	4.90%
Accra East	11	K06(K60)	312	319	326	333	341	348	356	364	373	381	389	2.25%
Accra East	11	K10(K61)	208	218	229	240	251	264	277	290	304	319	335	4.90%
Accra East	11	K11(K06)	304	319	335	351	368	386	405	425	446	468	491	4.90%
Accra East	11	K12(K07)	244	256	269	282	296	310	326	342	358	376	394	4.90%
Accra East	11	K13(K13)	283	297	312	327	343	360	377	396	415	436	457	4.90%
Accra East	11	K05(K150)	367	389	413	438	465	493	524	555	589	625	663	6.09%
Accra East	11	L13(Burma Camp 1)	320	336	352	369	387	406	426	447	469	492	516	4.90%
Accra East	11	L12(Burma Camp 3)	194	204	214	224	235	246	259	271	285	298	313	4.90%
Accra East	11	L11(L01)	273	286	300	315	330	346	363	381	400	419	440	4.90%
Accra East	11	L10(L22)	215	226	237	248	260	273	287	301	315	331	347	4.90%
Accra East	11	L05(Burma Camp 2)	304	319	335	351	368	386	405	425	446	468	491	4.90%
Accra East	11	L04(L03)	231	242	254	266	279	293	307	323	338	355	372	4.90%
Accra East	11	L03(L02)	284	308	323	339	356	373	391	410	431	452	474	4.90%
Accra East	11	L06(L12)	289	309	331	354	379	406	435	465	498	533	571	7.04%
Accra East	11	M01(Old Legion 1)	380	390	400	411	421	432	444	455	467	480	492	2.63%
Accra East	11	M02(Workshop)	42	44	46	48	51	53	56	59	62	65	68	4.90%
Accra East	11	M03(University 1)	241	253	265	278	292	306	321	337	354	371	389	4.90%
Accra East	11	M05(Old Legion 2)	294	308	323	339	356	373	391	410	431	452	474	4.90%
Accra East	11	M07(Madina)	473	511	553	598	647	700	757	819	886	958	1037	8.17%
Accra East	11	M08(Kwabena)	471	485	499	514	529	544	560	577	594	611	629	2.92%
Accra East	11	M10(University 2)	219	230	241	253	265	278	291	305	320	336	352	4.85%
Accra East	11	G01(Gold Spintex)	262	275	289	303	318	333	349	367	384	403	423	4.90%
Accra East	11	G03(Teshie 1)	502	527	553	580	608	638	669	702	737	773	811	4.90%
Accra East	11	G07(Teshie 2)	386	405	425	446	467	490	514	539	566	594	623	4.90%
Accra East	11	G06(Teshie 3)	378	396	416	436	457	480	503	528	554	581	609	4.90%
Accra East	11	R13	178	187	196	206	216	226	236	249	261	274	288	4.90%
Accra East	11	R12	301	313	325	337	350	364	378	393	408	423	440	3.86%
Accra East	11	R11	294	308	323	339	356	373	391	410	431	452	474	4.90%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Accra East	11	R10	78	81	85	90	94	99	103	108	114	119	125	4.90%
Accra East	11	R05	179	188	197	207	217	228	239	251	263	276	289	4.90%
Accra East	11	R04	157	160	163	166	169	172	175	178	181	184	188	1.82%
Accra East	11	R03	210	220	231	242	254	266	280	293	308	323	338	4.90%
Accra East	11	R02	281	295	309	324	340	357	375	393	412	432	454	4.90%
Accra East	11	T03(Adenta Est 1)	435	457	479	502	527	553	580	608	638	669	702	4.90%
Accra East	11	T04(Redcol)	435	457	479	502	527	553	580	608	638	669	702	4.90%
Accra East	11	T09(Agbogba)	386	412	440	470	502	536	573	612	654	698	746	6.82%
Accra East	11	T10(Ododowa)	215	225	235	246	258	270	282	295	309	324	339	4.67%
Accra East	11	T11(Pantang)	271	282	292	304	316	328	340	354	367	381	396	3.87%
Accra East	11	T02(Adenta Est 2)	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	11	Akropong W03	178	187	196	206	216	226	238	249	261	274	288	4.90%
Accra East	11	Pedulase	131	138	144	151	159	167	175	183	192	202	212	4.90%
Accra East	11	Tetteh Quashie	0	0	0	0	0	0	0	0	0	0	0	4.90%
Accra East	11	Y11(Spintex)	485	504	523	544	565	587	609	633	658	683	710	3.88%
Accra East	11	Y03(J & Z)	309	325	341	357	375	393	412	432	454	476	499	4.90%
Accra East	11	Y04(Johnson Wax)	458	481	504	529	555	582	611	641	672	705	739	4.90%
Accra East	11	Y09(Coca Cola)	305	311	316	322	328	334	340	346	352	358	365	1.79%
Accra East	11	Y10(Texpo)	488	523	548	575	603	633	664	696	730	766	804	4.90%
Accra East	11	Y02(Old Spintex)	259	272	285	299	314	329	345	362	380	398	418	4.90%
Accra East	11	Y12	0	0	0	0	0	0	0	0	0	0	0	4.90%

ECG Feeder Demand Forecast (high case)

Unit: A

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Ashanti Main A	33	Adoabo I& 2	1,055	1,159	1,273	1,398	1,536	1,687	1,853	2,036	2,237	2,457	2,699	9.65%
Ashanti Main A	33	Aboabo I& 2	937	998	1,062	1,131	1,204	1,282	1,365	1,453	1,547	1,647	1,754	6.47%
Ashanti Main A	11	Guinness 1	106	113	120	128	136	145	154	164	174	185	197	6.37%
Ashanti Main A	11	ABC	176	187	199	212	226	240	256	272	290	309	329	6.47%
Ashanti Main A	11	OBR	418	449	482	517	555	595	639	686	736	789	847	7.31%
Ashanti Main A	11	Ind/OHL	349	382	417	455	497	542	592	647	706	771	842	9.19%
Ashanti Main A	11	Power House 1	265	275	285	296	307	319	331	343	356	369	383	3.78%
Ashanti Main A	11	WAHW	145	151	156	162	169	175	181	188	195	203	211	3.78%
Ashanti Main A	11	Lake Road	405	443	484	530	579	634	693	758	830	907	993	9.39%
Ashanti Main A	11	Power House 2	415	442	471	501	534	568	605	644	686	730	777	6.47%
Ashanti Main A	11	Rain Tree	151	156	162	168	175	181	188	196	203	211	219	3.81%
Ashanti Main A	11	Guinness 2	213	227	241	257	274	291	310	330	352	374	399	6.47%
Ashanti Main A	11	New Asafo	90	96	103	109	116	124	132	140	149	159	169	6.47%
Ashanti Main A	11	LLLL	104	108	112	116	120	125	130	135	140	145	150	3.78%
Ashanti Main B	33	Manso Nkwanta	32	34	36	39	41	44	47	50	53	56	60	6.47%
Ashanti Main B	33	Barekese 1	72	74	76	78	80	83	85	88	90	93	95	2.83%
Ashanti Main B	33	Barekese 2	111	118	126	134	142	151	161	172	183	195	207	6.47%
Ashanti Main B	11	B 11	317	328	341	354	367	381	395	410	426	442	459	3.78%
Ashanti Main B	11	B 21	209	231	254	280	309	340	375	413	455	501	552	10.18%
Ashanti Main B	11	B 31	114	121	129	137	146	156	166	177	188	200	213	6.47%
Ashanti Main B	11	B 41	90	96	103	109	116	124	132	140	149	159	169	6.47%
Ashanti Main B	11	B 61	370	398	428	461	496	534	574	618	665	715	769	7.59%
Ashanti Main B	11	B 71	342	361	381	402	424	447	472	498	525	554	585	5.51%
Ashanti Main B	11	B 81	335	348	361	375	389	403	419	435	451	468	486	3.78%
Ashanti Main C	33	Nsuta /Kumawu	253	267	282	299	316	334	353	373	395	417	441	5.73%
Ashanti Main C	11	G21	225	230	246	261	276	292	308	325	342	360	379	2.27%
Ashanti Main C	11	C31	170	181	193	206	219	233	248	264	281	299	319	6.47%
Ashanti Main C	11	O41	286	299	313	327	343	359	375	393	411	430	450	4.64%
Ashanti Main C	11	C51	173	190	203	216	230	246	261	277	295	314	335	6.47%
Ashanti Main C	11	Asokore Mampong	261	269	277	286	295	304	313	323	333	343	354	3.10%
Ashanti Main C	11	Airport 1	355	376	397	421	446	472	500	529	559	590	622	2.89%
Ashanti Main C	11	Airport 2	431	459	489	521	555	591	629	670	714	760	810	6.50%
Ashanti Main D	33	Bekwai	103	106	109	112	115	118	121	125	128	132	136	2.80%
Ashanti Main D	11	D11	176	187	199	212	226	240	256	272	290	309	329	6.47%
Ashanti Main D	11	D21	375	390	405	422	439	456	475	494	514	534	556	4.03%
Ashanti Main D	11	D31	437	465	495	527	561	597	636	677	721	767	817	6.47%
Ashanti Main D	11	D41	189	198	208	219	229	241	253	265	278	292	307	4.97%
Ashanti Main D	11	D51	192	204	217	231	246	262	278	297	316	337	359	6.47%
Ashanti Main E	11	E11	309	329	350	373	397	422	450	479	510	543	578	6.47%
Ashanti Main E	11	E21	273	277	280	284	287	291	294	298	301	305	309	1.23%
Ashanti Nsuta	11	Mampong	124	126	129	132	135	138	141	144	147	151	154	2.22%
Ashanti Nsuta	11	Nsuta	39	41	43	45	48	50	53	55	58	61	64	5.15%
Ashanti Agona	33	Kumawu	134	143	152	162	172	184	195	208	222	236	251	6.47%
Ashanti Agona	33	Nsuta	216	230	245	261	278	296	315	335	357	380	405	6.47%
Ashanti Kongo	11	Konongo	174	183	193	203	214	225	237	250	263	277	292	5.32%
Ashanti Kongo	11	Agogo	103	111	120	130	141	153	165	179	194	210	227	8.24%
Ashanti Kongo	11	Odumasi	82	91	99	109	120	132	145	159	175	192	211	9.86%
Ashanti Effiduase	11	Ejisu	116	124	132	140	149	159	169	180	192	204	217	6.47%
Ashanti Effiduase	11	Effiduase	78	85	92	100	109	118	128	139	151	164	178	8.56%
Ashanti Kokofu	11	Kokofu	71	77	82	89	96	103	111	120	129	139	149	7.71%
Ashanti Kokofu	11	Package	20	21	22	24	25	27	28	30	31	33	35	5.74%
Ashanti Kokofu	11	Water Works	41	43	45	48	50	53	56	59	62	65	68	5.25%
Ashanti Obuasi	11	Tutuka	213	227	241	257	274	291	310	330	352	374	399	6.47%
Ashanti Obuasi	11	New Esubiase	98	106	111	118	126	134	143	152	162	172	183	6.47%
Ashanti Obuasi	11	Fomena	306	306	326	347	369	393	419	446	475	505	538	6.47%
Ashanti Obuasi	11	Stadium	100	107	113	121	129	137	146	155	165	176	187	6.47%
Central Winneba	11	WINNEBA	406	433	463	494	528	564	602	643	687	733	783	6.79%
Central Winneba	11	SWEDRU 1	193	200	208	217	226	235	244	254	265	275	287	4.06%
Central Winneba	11	SWEDRU 2	298	317	338	360	383	408	434	462	492	524	558	6.46%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Central Winneba	11	APAM	130	142	154	168	182	198	215	234	254	277	301	8.71%
Central Saltpond	11	Saltpond	50	54	57	61	65	70	74	79	85	90	96	6.76%
Central Saltpond	11	Mankessim	125	133	142	151	160	170	181	192	204	217	231	6.29%
Central Saltpond	11	Anomabo	40	43	45	48	51	54	58	61	65	69	73	6.18%
Central Cape Coast	33	PRASO	57	61	65	69	73	78	83	88	93	99	105	6.27%
Central Cape Coast	33	SALTPOND/FOSU	199	212	227	242	258	276	295	315	336	359	383	6.80%
Central Cape Coast	33	FOSU	119	127	136	145	155	165	176	188	201	214	228	6.69%
Central Cape Coast	33	SALTPOND	92	98	104	111	119	127	135	144	154	164	175	6.69%
Central Cape Coast	33	ELMINA	343	368	395	423	454	487	522	560	600	644	691	7.24%
Central Cape Coast	11	RIGDES	127	135	143	151	160	169	180	191	202	214	227	5.96%
Central Cape Coast	11	TOWN 1	91	97	103	110	117	125	134	143	152	162	173	6.89%
Central Cape Coast	11	TOWN 2	354	380	407	436	468	502	538	577	619	664	712	7.24%
Central Cape Coast	11	TOWN 3	171	182	194	207	221	236	252	269	287	306	326	6.69%
Eastern Koforidua	33	Tafu - 33kV	225	234	243	253	263	274	285	297	309	321	334	4.05%
Eastern Koforidua	11	11kV Incomer	590	612	634	656	680	704	730	756	783	811	840	3.59%
Eastern Koforidua	11	Power House	155	165	176	188	201	214	229	244	261	278	297	6.73%
Eastern Koforidua	11	Estate Junction	149	159	170	182	194	207	221	236	252	269	287	6.73%
Eastern Koforidua	11	St. Joseph	70	75	80	86	91	98	104	111	119	127	135	6.73%
Eastern Koforidua	11	Acra Rd	209	216	223	230	238	245	254	262	271	280	289	3.30%
Eastern Koforidua	11	Old Estate	93	99	106	113	121	129	137	147	156	167	178	6.73%
Eastern Oda	33	Akwatia - 33kV	182	188	194	201	208	214	222	229	237	245	253	3.55%
Eastern Oda	11	11kV Incomer	380	415	454	497	543	594	650	711	777	850	930	9.37%
Eastern Oda	11	Oda Town	122	124	126	128	130	132	134	136	138	141	143	1.60%
Eastern Oda	11	Sawmill	96	103	109	117	125	133	142	152	162	173	184	6.73%
Eastern Oda	11	Achiase	121	127	133	139	146	153	160	167	175	183	192	4.69%
Eastern Nkwakaw	33	Nkwakaw-33kV	98	103	108	113	118	123	129	135	141	148	154	4.82%
Eastern Nkwakaw	33	New Abirem	72	73	74	75	76	77	78	79	80	81	82	1.36%
Eastern Nkwakaw	33	Donkorikrom	21	22	24	25	26	27	28	30	31	33	35	5.74%
Eastern Nkwakaw	33	Enyinst	7	8	9	9	10	10	11	12	13	14	14	6.82%
Eastern Nkwakaw	11	14FI	707	714	720	727	734	741	748	756	763	770	778	0.86%
Eastern Nkwakaw	11	11kV Incomer	261	265	269	272	276	279	283	287	291	295	299	1.34%
Eastern Nkwakaw	11	Mountains	269	290	312	336	361	389	419	451	485	523	563	7.65%
Eastern Nkwakaw	11	Nkwakaw Town	204	219	235	252	271	291	312	335	359	386	414	7.34%
Eastern Nkwakaw	11	Novorex	57	60	65	69	74	79	84	90	96	102	109	6.82%
Eastern Akwatia	33	16F2	239	256	273	292	311	333	355	380	406	433	463	6.82%
Eastern Akwatia	33	Oda	182	188	194	201	208	214	222	229	237	245	253	3.35%
Eastern Akwatia	11	*16F3	139	148	158	169	180	192	205	219	234	249	266	6.73%
Eastern Akwatia	11	11kV Incomer	163	174	186	199	212	226	241	258	275	294	313	6.73%
Eastern Akwatia	11	Akwatia	157	161	165	170	174	179	183	188	193	198	203	2.62%
Eastern Akwatia	11	Asamankese	158	168	178	188	199	211	224	237	251	266	282	5.95%
Eastern Tafo	33	15F2	239	255	272	291	310	331	353	377	403	430	459	6.73%
Eastern Tafo	33	Koforidua	225	234	243	253	263	274	285	297	309	321	334	4.05%
Eastern Tafo	33	Asesewa	20	20	21	21	22	23	23	24	25	25	26	2.93%
Eastern Tafo	11	15F1	526	554	584	614	647	681	717	755	795	837	881	5.29%
Eastern Tafo	11	Tafu	264	279	295	311	329	347	367	388	409	432	457	5.83%
Eastern Tafo	11	Kibi/Suhum	217	230	243	257	273	289	305	323	342	362	384	5.86%
Eastern Tafo	11	Opass	41	43	44	46	47	49	51	52	54	56	58	3.42%
Tema A	33	A-11	90	96	103	110	118	127	135	145	155	166	178	7.06%
Tema A	33	A-12	70	75	80	86	92	98	105	113	121	129	138	7.06%
Tema A	11	A21	160	171	183	196	210	225	241	258	276	296	316	7.06%
Tema A	11	A31	250	268	287	307	328	352	376	403	431	462	494	7.06%
Tema A	11	A41	50	55	60	65	71	78	85	93	102	111	121	9.27%
Tema A	11	A61	140	150	160	172	184	197	211	226	242	259	277	7.06%
Tema A	11	A71	280	300	321	344	368	394	422	451	483	517	554	7.06%
Tema A	11	A81	50	54	57	61	66	70	75	81	86	92	99	7.06%
Tema A	11	A91	120	128	138	147	158	169	181	193	207	222	237	7.06%
Tema B	11	B31	220	236	252	270	289	309	331	356	380	406	435	7.06%
Tema B	11	B41/71	130	139	149	160	171	183	196	210	224	240	257	7.06%
Tema B	11	B51	55	59	63	67	72	77	83	89	95	102	109	7.06%
Tema B	11	B91	200	214	229	245	263	281	301	322	345	369	395	7.06%

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Tema B	11	B101	100	107	115	123	131	141	151	161	173	185	198	7.06%
Tema B	11	B111	300	321	344	368	394	422	452	483	518	554	593	7.06%
Tema B	33	B.Y1	180	193	206	221	236	253	271	290	311	332	356	7.06%
Tema B	33	B.Y2	130	139	149	160	171	183	196	210	224	240	257	7.06%
Tema D	33	D-A1	290	310	332	356	381	408	437	467	500	536	573	7.06%
Tema D	33	D-A2 (U/C)	0	0	0	0	0	0	0	0	0	0	0	7.06%
Tema D	33	D-E1	105	112	120	129	138	148	158	169	181	194	208	7.06%
Tema D	33	D-E2	101	108	116	124	133	142	152	163	174	187	200	7.06%
Tema D	11	GHADEM	240	257	275	294	315	337	361	387	414	443	475	7.06%
Tema D	11	AGRONA	220	236	252	270	289	309	331	355	380	406	435	7.06%
Tema D	11	LUBE OIL	200	214	229	245	263	281	301	322	345	369	395	7.06%
Tema D	11	F/H # 1	70	75	80	86	92	98	105	113	121	129	138	7.06%
Tema D	11	PFC	120	128	138	147	158	169	181	193	207	222	237	7.06%
Tema D	11	F/H # 2	240	257	275	294	315	337	361	387	414	443	475	7.06%
Tema D	11	ASASEWA	125	134	143	153	164	176	188	201	216	231	247	7.06%
Tema D	11	PSC Ship Yard	70	75	80	86	92	98	105	113	121	129	138	7.06%
Tema E	33	E-G.P.H.A	17	18	19	21	22	24	26	27	29	31	34	7.06%
Tema E	11	E11	110	118	126	135	144	155	166	177	190	203	218	7.06%
Tema E	11	E21	320	343	367	393	420	450	482	516	552	591	633	7.06%
Tema E	11	G.T.M.C	80	87	96	104	114	125	136	149	163	178	194	9.27%
Tema S	11	S31 (AFARIWA)	280	300	321	344	368	394	422	451	483	517	554	7.06%
Tema S	11	S41 (COMMUNITY 22)	80	86	92	98	105	112	120	129	138	148	158	7.06%
Tema S	11	S61 (OFFICIAL TOWN)	100	107	115	123	131	141	151	161	173	185	198	7.06%
Tema S	11	S91 (NEW TOWN)	200	214	229	245	263	281	301	322	345	369	395	7.06%
Tema L	11	KLAGON	117	125	134	144	154	165	176	189	202	216	231	7.06%
Tema L	11	COMM/20	160	171	183	196	210	223	241	258	276	296	316	7.06%
Tema L	11	NUNGUWA	283	314	336	359	385	412	441	472	506	541	579	7.06%
Tema L	11	Vivian Farm	106	113	121	130	139	149	160	171	183	196	210	7.06%
Tema H	33	H-A1	290	310	332	356	381	408	437	467	500	536	573	7.06%
Tema H	33	H-B1	370	396	424	454	486	520	557	596	638	683	732	7.06%
Tema H	33	H-B2	385	412	441	472	506	541	580	620	664	711	761	7.06%
Tema H	33	H-E1	75	80	86	92	99	105	113	121	129	139	148	7.06%
Tema H	33	H-E2	70	75	80	86	92	98	105	113	121	129	138	7.06%
Tema H	33	STLWKS	90	96	103	110	118	127	135	145	155	166	178	7.06%
Tema H	33	WAHOME	146	156	167	179	192	205	220	235	252	270	289	7.06%
Tema H	11	Kpone Garages	150	161	172	184	197	211	226	242	259	277	297	7.06%
Tema H	11	Slaughter Hse	60	64	69	74	79	84	90	97	104	111	119	7.06%
Tema H	11	T.O.R	200	214	229	245	263	281	301	322	345	369	395	7.06%
Tema H	11	Ernest Chemist	240	257	275	294	315	337	361	387	414	443	475	7.06%
Tema H	11	Prampram	220	236	252	270	289	309	331	355	380	406	435	7.06%
Tema H	11	Nestle	320	343	367	393	420	450	482	516	552	591	633	7.06%
Tema H	11	Western Casting	309	331	354	379	406	435	465	498	533	571	611	7.06%
Tema H	33	H FERROFAB	150	161	172	184	197	211	226	242	259	277	297	7.06%
Tema H	33	H Ashiaman1	255	273	292	313	335	359	384	411	440	471	504	7.06%
Tema H	33	H Ashiaman2	0	0	0	0	0	0	0	0	0	0	0	7.06%
Tema H	33	H-TTL	20	21	23	25	26	28	30	32	35	37	40	7.06%
Tema K	11	Akwamufie	60	64	69	74	79	84	90	97	104	111	119	7.06%
Tema K	33	Okwenya	20	21	23	25	26	28	30	32	35	37	40	7.06%
Tema K	33	Juapong	32	34	37	39	42	45	48	52	55	59	63	7.06%
Tema K	11	Asutsuare	42	45	48	52	55	59	63	68	72	78	83	7.06%
Tema K	11	Military Camp	10	11	12	13	14	15	16	17	19	20	20	7.06%
Tema K	11	Krobo Area	258	276	296	317	339	363	388	416	445	477	510	7.06%
Tema K	11	Old Works	60	64	69	74	79	84	90	97	104	111	119	7.06%
Tema K	11	Kpong	22	24	25	27	29	30	32	34	36	39	41	6.31%
Tema K	33	Abor-Ave Dzalele	51	54	58	61	65	69	74	78	83	89	94	6.31%
Tema K	33	Incomer	89	95	101	107	114	121	129	137	146	155	165	6.31%
Tema K	11	Incomer	165	175	186	198	211	224	238	253	269	286	304	6.31%
Tema K	11	Denu	122	130	138	147	156	166	177	188	200	212	226	6.31%
Tema K	11	Aflao	43	45	48	51	54	58	61	65	69	74	78	6.31%
Tema K	11	F1 - HO POLY-SOKODE-MATSE	139	148	157	167	178	189	201	214	227	242	257	6.31%
Tema K	11	F2 - HO CENTRAL	180	197	215	236	258	282	309	338	370	405	444	9.47%

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Volta Ho	11	F3 - HO - TANYIGBE - KPETOE	187	199	211	225	239	264	270	287	305	325	345	6.31%
Volta Ho	11	F4 - REGIONAL HOSPITAL	24	26	27	29	31	33	35	37	39	41	44	6.06%
Volta Ho	11	INGOMER	0	0	0	0	0	0	0	0	0	0	0	6.31%
Volta Ho	11	INGOMER	441	469	499	530	564	599	637	677	720	766	814	6.31%
Volta Kpeve	33	TSITO - AMEDZOPE	51	54	58	61	65	69	74	78	83	89	94	6.31%
Volta Kpeve	11	HAVE	17	18	19	20	22	23	25	26	28	30	31	6.31%
Volta Kpeve	11	GWCL	83	88	94	100	106	113	120	127	135	144	153	6.31%
Volta Kpeve	11	KPEVE TOWNSHIP	45	47	50	54	57	61	64	69	73	77	82	6.31%
Volta Kpando	33	NKONYA	19	20	22	23	24	26	28	29	31	33	35	6.31%
Volta Kpando	33	HOF	136	144	153	162	172	182	193	205	217	231	245	6.06%
Volta Kpando	33	INGOMER	204	214	225	237	249	262	275	289	304	320	336	5.13%
Volta Kpando	11	INGOMER	135	149	165	183	202	224	248	274	304	336	372	10.66%
Volta Kpando	11	KPANDO	77	81	87	92	98	104	111	118	125	133	141	6.31%
Volta Kpando	11	KPANDO	62	66	70	74	79	84	89	95	101	107	114	6.31%
Volta Sogakope	33	ADIDOME	9	10	11	12	13	14	15	17	18	20	22	9.74%
Volta Sogakope	33	ADA	50	53	56	59	62	66	69	73	78	82	87	5.73%
Volta Sogakope	33	SOGAKOPE - AKATSI - KETA	174	181	188	196	204	212	221	230	239	249	259	4.08%
Volta Tsito	11	TSITO - TOWNSHIP	15	16	17	18	19	20	21	23	24	26	27	6.31%
Volta Tsito	11	ADULT COLLEGE	2	2	2	3	3	3	3	3	3	4	4	6.31%
Volta Tsito	11	PEKI	74	79	84	89	95	101	107	114	121	129	137	6.31%
Volta Tsito	11	INGOMING	81	86	91	97	103	110	117	124	132	140	149	6.31%
Western sub	33	SEKONDI	1,013	1,058	1,105	1,154	1,206	1,259	1,315	1,374	1,435	1,499	1,565	4.45%
Western sub	33	TARKWA	914	955	997	1,041	1,088	1,136	1,186	1,239	1,294	1,352	1,412	4.45%
Western sub	33	ASAWINSO	496	518	541	565	590	617	644	673	703	734	766	4.45%
Western sub	33	ESIAMA	117	128	141	154	169	185	203	222	243	266	292	9.55%
Western sub	33	BOGOSO	91	92	93	94	95	97	98	99	100	101	102	1.14%
Western stn A	33	VRA 1	556	580	606	633	661	691	721	753	787	822	858	4.45%
Western stn A	33	VRA 2	500	523	546	570	595	622	649	678	709	740	773	4.45%
Western stn A	33	TDI 2 (CCT 1)	418	436	456	476	497	519	542	566	592	618	645	4.45%
Western stn A	33	TDI 2 (CCT 2)	245	250	256	262	268	274	280	287	294	300	307	2.31%
Western stn A	33	TDI 3 (CCT 5)	279	291	304	318	332	347	362	378	395	412	431	4.45%
Western stn A	33	DABOASE (CCT 3)	0	0	0	0	0	0	0	0	0	0	0	4.45%
Western stn A	33	DABOASE (CCT 4)	0	0	0	0	0	0	0	0	0	0	0	4.45%
Western stn A	11	A09	79	83	87	90	94	99	103	108	112	117	123	4.45%
Western stn A	11	A10	292	305	319	333	348	363	380	397	414	433	452	4.45%
Western stn A	11	A13	199	209	219	230	241	252	265	277	291	305	320	4.85%
Western stn A	11	A31	345	360	376	393	410	428	447	467	488	510	532	4.45%
Western stn A	11	A41	334	349	365	381	398	415	434	453	473	494	516	4.45%
Western stn A	11	A44	138	146	155	165	175	186	197	209	222	235	250	6.11%
Western stn A	11	A55	277	308	342	379	421	467	518	574	637	707	785	10.96%
Western stn A	11	A57	102	107	112	117	122	127	133	139	145	151	158	4.45%
Western stn B	11	B01	10	11	11	12	12	13	14	14	15	15	16	4.45%
Western stn B	11	B09	115	121	127	133	139	146	153	161	168	177	185	4.85%
Western stn B	11	B11	115	120	125	131	137	143	149	156	163	170	177	4.45%
Western stn B	11	B21	283	297	311	326	342	359	376	394	413	433	454	4.85%
Western stn B	11	B32	501	524	547	571	597	623	651	680	710	742	775	4.45%
Western stn B	11	B41	219	229	239	250	261	273	285	297	311	324	339	4.45%
Western stn B	11	B51	297	327	359	395	434	478	525	578	635	699	769	9.98%
Western stn B	11	B52	320	342	365	390	417	445	475	507	542	578	618	6.78%
Western stn B	11	B67	131	137	144	151	158	166	174	183	191	201	210	4.85%
Western stn B	11	B71	420	453	488	526	567	611	659	710	765	825	889	7.78%
Western stn B	11	B81	191	209	228	250	273	298	326	356	389	425	464	9.27%
Western stn B	11	B87	230	240	251	262	273	286	298	312	325	340	355	4.45%
Western stn C	33	AGONA	49	52	56	60	63	68	72	77	82	88	93	6.66%
Western stn C	11	C01	272	284	296	309	323	338	353	368	384	402	420	4.45%
Western stn C	11	C02	148	157	166	176	186	197	208	221	234	247	262	5.85%
Western stn C	11	C08	230	240	251	262	273	286	298	312	325	340	355	4.45%
Western stn C	11	C10	299	313	328	344	361	379	397	416	436	457	480	4.85%
Western	33	Aboso1	262	169	189	218	253	293	339	393	455	528	611	8.84%
Western	33	Aboso2	294	307	321	335	350	365	382	399	416	435	454	4.45%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Western	33	Tamso	50	52	55	57	60	62	65	68	71	74	77	4.45%
Western	33	Teberbe1	241	252	263	275	287	300	313	327	341	356	372	4.45%
Western	33	Teberbe2	120	125	131	137	143	149	156	163	170	177	185	4.45%
Western	11	Manganese	300	313	327	342	357	373	389	407	425	444	463	4.45%
Western	11	Town1	30	31	33	34	36	37	39	41	42	44	46	4.45%
Western	11	Town2	190	116	118	132	148	165	185	207	232	259	290	4.33%
Western	33	Line1	246	150	164	187	213	242	276	314	357	407	463	6.53%
Western	33	Line2	294	307	321	335	350	365	382	399	416	435	454	4.45%
Western	11	Aboso Town	57	61	65	69	74	79	84	90	96	102	109	6.69%
Western	11	Power House	11	12	13	13	13	14	14	15	16	16	17	4.45%
Western	11	Court Area/Hospital	89	93	97	101	106	111	116	121	126	132	137	4.45%
Western	11	Line1	85	89	93	97	101	106	110	115	120	126	131	4.45%
Western	33	Line1	98	102	107	112	117	122	127	133	139	145	151	4.45%
Western	11	Line1	241	252	263	275	287	300	313	327	341	356	372	4.45%
Western	11	Line1	241	252	263	275	287	300	313	327	341	356	372	4.45%
Western	11	Line1	177	186	195	204	214	224	235	247	259	271	284	4.85%
Western	33	Half Assini	71	74	77	81	84	88	92	96	101	105	110	4.45%
Western	33	NKROFUL/Station C	35	37	38	40	42	44	45	47	50	52	54	4.45%
Western	11	Awoso Town	152	159	166	173	181	189	197	206	215	225	235	4.45%
Western	11	Power House	70	77	86	95	105	116	128	142	157	174	192	10.62%
Western	11	Kakokrom	88	92	96	100	105	109	114	119	125	130	136	4.45%
Western	33	Chirano Mines	126	132	139	145	152	160	167	176	184	193	202	4.85%
Western	33	Bibiani	166	173	181	189	198	206	215	225	235	246	256	4.45%
Western	33	Wiaso/Awaso	153	160	167	174	182	190	199	207	217	226	236	4.45%
Western	33	Denkyera Obuasi	7	7	8	8	8	9	9	9	10	10	11	4.45%
Western	33	Jejetreso	4	4	4	5	5	5	5	5	6	6	6	4.45%
Western	11	Line1	1	1	1	1	1	1	1	1	1	1	2	4.45%
Western	11	Line1	1	1	1	1	1	1	1	1	1	1	2	4.45%
Western	11	Old Town	72	76	81	86	92	97	103	110	117	124	132	6.23%
Western	11	Pit Site	34	36	37	39	40	42	44	46	48	50	53	4.45%
Western	11	Gyedi/town	72	75	79	82	86	89	93	98	102	106	111	4.45%
Accra West	11	A16	165	175	185	196	208	220	233	247	261	277	293	5.90%
Accra West	11	A01	504	529	556	584	613	644	677	711	746	784	823	5.03%
Accra West	11	A120	505	539	574	612	653	696	742	791	843	899	958	6.61%
Accra West	11	A61	510	542	576	612	651	692	735	781	830	882	938	6.21%
Accra West	11	A18	97	104	112	119	128	137	147	157	168	180	192	7.04%
Accra West	11	A13	269	286	304	323	343	365	387	412	438	465	494	6.27%
Accra West	11	B19	361	384	408	434	461	490	521	553	588	625	664	6.27%
Accra West	11	B15	361	384	408	434	461	490	521	553	588	625	664	6.27%
Accra West	11	B20	218	232	246	262	278	295	314	334	355	377	400	6.27%
Accra West	11	B24	329	350	372	395	420	447	475	504	536	570	605	6.27%
Accra West	11	B28	366	393	422	453	487	522	561	602	647	694	746	7.37%
Accra West	11	B27	359	391	426	464	506	551	600	653	711	775	844	8.91%
Accra West	11	B25	276	294	312	332	352	375	398	423	450	478	508	6.27%
Accra West	11	B42	297	322	350	379	412	446	484	525	570	618	671	8.48%
Accra West	11	B35	213	226	240	255	271	288	306	325	346	368	391	6.27%
Accra West	11	ABC 1	84	89	95	101	107	114	121	129	137	145	154	6.27%
Accra West	11	ABC 2	373	396	421	448	476	506	537	571	607	645	686	6.27%
Accra West	11	ABC 3	319	339	360	383	407	432	459	488	519	551	586	6.27%
Accra West	11	C60	340	361	384	408	434	461	490	521	553	588	625	6.27%
Accra West	11	C20	355	381	409	438	470	505	541	581	623	669	717	7.28%
Accra West	11	CD51	364	393	423	456	491	530	571	615	663	715	770	7.77%
Accra West	11	C13	386	420	457	497	541	588	640	696	757	824	896	8.79%
Accra West	11	C140	378	402	427	454	483	513	545	579	616	654	695	6.27%
Accra West	11	D01	284	302	320	341	362	385	409	434	462	491	521	6.27%
Accra West	11	D114	353	367	381	395	411	427	443	460	478	496	515	3.85%
Accra West	11	D103	409	440	474	510	549	591	636	684	736	792	853	7.62%
Accra West	11	D101	410	438	468	500	534	571	610	651	696	743	784	6.83%
Accra West	11	Panel 10	372	395	420	446	474	504	536	570	605	643	684	6.27%
Accra West	11	D16	432	473	519	568	623	682	748	820	898	984	1,079	9.59%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Accra West	11	D123	298	316	336	357	380	403	429	456	484	515	547	6.27%
Accra West	11	D24	256	272	289	307	327	347	369	392	417	443	471	6.27%
Accra West	11	D150	287	305	324	344	366	389	413	439	467	496	527	6.27%
Accra West	11	A/W - Region	53	56	60	64	68	72	77	81	86	92	98	6.27%
Accra West	11	E08	335	356	378	402	427	454	482	513	545	579	615	6.27%
Accra West	11	E07	360	381	404	428	453	480	508	538	569	603	639	5.90%
Accra West	11	EG14	283	309	336	366	399	435	474	516	563	613	668	8.95%
Accra West	11	E20	228	241	255	270	286	303	321	340	360	381	404	5.90%
Accra West	11	E26	155	165	175	186	198	210	224	238	252	268	285	6.27%
Accra West	11	E41	74	79	84	89	95	101	107	114	121	129	137	6.27%
Accra West	11	ABL 1	106	112	119	126	133	141	149	158	167	177	188	5.90%
Accra West	11	ABL 2	99	105	112	119	126	134	142	151	161	171	182	6.27%
Accra West	11	E150	287	305	324	344	366	389	413	439	467	496	527	6.27%
Accra West	11	F11	213	226	240	255	271	288	306	325	346	368	391	6.27%
Accra West	11	F01	244	260	276	293	312	331	352	374	398	423	449	6.27%
Accra West	11	G25	329	350	372	395	420	447	475	504	536	570	605	6.27%
Accra West	11	G32	192	204	217	231	245	261	277	295	313	333	354	6.27%
Accra West	11	G56	252	264	277	291	305	320	336	352	370	388	407	4.91%
Accra West	11	G05	169	179	190	201	213	226	239	253	268	284	301	5.90%
Accra West	11	GE19	234	248	264	281	298	317	337	358	380	404	430	6.27%
Accra West	11	Nsawm-Accra	282	307	333	362	393	427	463	503	546	593	644	8.60%
Accra West	11	Township	78	82	88	93	99	105	112	119	126	134	143	6.27%
Accra West	11	Adoagyiri	244	260	276	293	312	331	352	374	398	423	449	6.27%
Accra West	11	R13	181	192	204	217	230	245	260	277	294	312	332	6.27%
Accra West	11	R12	306	322	340	358	378	398	420	442	466	491	518	5.42%
Accra West	11	R11	297	314	333	352	373	395	418	443	469	497	526	5.90%
Accra West	11	R10	78	83	88	93	99	104	111	117	124	131	139	5.90%
Accra West	11	R05	181	192	203	215	228	241	255	270	286	303	321	5.90%
Accra West	11	R04	162	171	181	191	201	212	224	236	249	263	277	5.48%
Accra West	11	R03	213	226	240	255	271	288	306	325	346	368	391	6.27%
Accra West	11	S02	217	230	243	258	273	289	306	324	343	364	385	5.90%
Accra West	11	S03	314	333	354	376	400	425	452	480	510	542	576	6.27%
Accra West	11	S04	227	241	261	280	300	322	345	370	396	425	456	7.20%
Accra West	11	S10 and S11	422	435	447	460	474	488	502	517	532	548	564	2.94%
Accra West	11	S11	175	185	196	208	220	233	247	261	276	293	310	5.90%
Accra West	11	V02	293	311	329	348	369	391	414	438	464	491	520	5.90%
Accra West	11	V03	266	282	299	317	336	357	378	401	425	451	478	6.03%
Accra West	11	V04	172	183	194	207	220	233	248	264	280	298	316	6.27%
Accra West	11	V10	478	505	533	563	595	628	663	701	740	781	823	5.60%
Accra West	11	V11	278	296	314	334	355	377	401	426	453	482	512	6.27%
Accra West	11	Tuba	213	226	240	255	271	288	306	325	346	368	391	6.27%
Accra West	11	Radio	420	446	474	504	535	569	605	643	683	726	772	6.27%
Accra West	33	Dansoman	465	490	517	546	576	608	642	677	715	755	796	5.54%
Accra West	33	Awoshie 1	522	562	605	652	703	757	816	879	947	1,020	1,099	7.74%
Accra West	33	Bubuashie	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Awoshie 2	522	562	605	652	703	757	816	879	947	1,020	1,099	7.74%
Accra West	33	Laterbiokoshie	619	683	753	831	917	1,012	1,116	1,231	1,358	1,498	1,653	10.32%
Accra West	33	Korle bu	406	428	450	475	500	527	555	585	616	649	684	5.36%
Accra West	33	Mataheko	418	440	464	489	515	543	572	603	636	670	706	5.40%
Accra West	33	Bubuashie	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Achimota 2	676	716	758	803	850	900	953	1,009	1,069	1,132	1,199	5.90%
Accra West	33	Quary 2	280	296	314	332	352	372	394	418	442	468	496	5.90%
Accra West	33	Achimota 1	670	710	751	796	843	892	945	1,001	1,060	1,122	1,188	5.90%
Accra West	33	Nsawam	452	476	502	529	557	587	619	652	687	724	763	5.37%
Accra West	33	Quary 1	291	308	327	346	366	388	411	435	461	488	517	5.90%
Accra West	33	Avenor 2	641	679	719	761	806	854	904	957	1,014	1,073	1,137	5.90%
Accra West	33	Avenor 1	647	685	725	768	813	861	912	966	1,023	1,083	1,147	5.90%
Accra West	33	Afajo 1	1,119	1,185	1,255	1,328	1,407	1,490	1,578	1,671	1,769	1,874	1,984	5.90%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Accra West	33	Alajo 2	1,095	1,160	1,228	1,301	1,378	1,459	1,545	1,636	1,732	1,835	1,943	5.90%
Accra West	33	Kokomlemle	652	722	800	886	982	1,087	1,205	1,334	1,478	1,637	1,813	10.77%
Accra West	33	Laterbiokoshie	746	790	836	886	936	983	1,032	1,114	1,200	1,249	1,323	5.90%
Accra West	33	Korobabi 2	645	713	789	873	965	1,068	1,181	1,306	1,444	1,597	1,767	10.60%
Accra West	33	Korobabi 1	575	626	681	742	807	879	957	1,041	1,134	1,234	1,343	8.86%
Accra West	33	Okraishie1	464	490	517	545	575	607	640	675	712	751	792	5.49%
Accra West	33	Adabraka	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Avenor 1	533	574	617	664	715	769	828	891	959	1,032	1,111	7.82%
Accra West	33	Avenor 2	488	515	544	574	606	639	675	712	752	794	838	5.53%
Accra West	33	Okraishie 2	441	465	490	517	545	574	605	638	673	709	748	5.45%
Accra West	33	Kokomlemle	603	660	723	792	868	951	1,041	1,141	1,250	1,369	1,500	9.54%
Accra West	33	Adabraka	186	197	209	221	234	248	263	278	295	312	331	5.90%
Accra West	33	Okraishie 1	441	465	490	517	545	574	605	638	673	709	748	5.43%
Accra West	33	Ringway	476	502	530	559	590	622	656	692	730	771	813	5.50%
Accra West	33	Korfe-Bu	315	333	353	374	396	419	444	470	498	527	558	5.90%
Accra West	33	Okraishie 2	545	587	632	681	733	789	850	916	986	1,062	1,143	7.89%
Accra West	33	Kinbu	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Achimota 1	699	740	784	830	879	931	986	1,044	1,106	1,171	1,240	5.90%
Accra West	33	Achimota 2	641	679	719	761	806	854	904	957	1,014	1,073	1,137	5.90%
Accra West	33	Alajo 1	1,119	1,185	1,255	1,328	1,407	1,490	1,578	1,671	1,769	1,874	1,984	5.90%
Accra West	33	Alajo 2	1,107	1,172	1,241	1,315	1,392	1,474	1,561	1,653	1,751	1,854	1,964	5.90%
Accra West	33	Mamobi 1	591	647	708	776	850	931	1,019	1,116	1,222	1,339	1,466	9.52%
Accra West	33	Mamobi 2	629	666	706	747	791	838	887	940	995	1,054	1,116	5.90%
Accra West	33	Mamobi	1,142	1,209	1,281	1,356	1,436	1,521	1,611	1,706	1,806	1,913	2,026	5.90%
Accra West	33	Legon	605	665	732	805	885	973	1,070	1,177	1,294	1,423	1,565	9.97%
Accra West	33	Adenta	699	740	784	830	879	931	986	1,044	1,106	1,171	1,240	5.90%
Accra West	33	Korobabi 1	645	714	790	874	968	1,071	1,185	1,311	1,451	1,605	1,777	10.66%
Accra West	33	Korobabi 2	676	716	758	803	850	900	953	1,009	1,069	1,132	1,199	5.90%
Accra West	33	Airport 1	1,049	1,111	1,176	1,245	1,319	1,397	1,479	1,566	1,659	1,757	1,860	5.90%
Accra West	33	Airport 2	798	845	895	948	1,004	1,063	1,126	1,192	1,262	1,337	1,416	5.90%
Accra West	33	Cantonment 1	400	421	443	467	492	518	545	574	605	637	670	5.31%
Accra West	33	Ringway	417	440	463	488	514	542	571	602	634	668	704	5.36%
Accra West	33	Mamobi 2	441	465	490	517	545	574	606	639	673	710	749	5.44%
Accra West	33	Mamobi 1	699	740	784	830	879	931	986	1,044	1,106	1,171	1,240	5.90%
Accra West	33	Mamobi 3	520	558	600	644	692	743	798	857	920	989	1,062	7.40%
Accra West	33	Cantonment 2	388	408	430	453	476	502	528	556	585	616	648	5.27%
Accra West	33	Ridge	291	308	327	346	366	388	411	435	461	488	517	5.90%
Accra West	33	T-Nungua 2	359	377	397	417	439	461	485	510	537	564	594	5.16%
Accra West	33	Cantonment 1	394	414	436	459	483	508	535	563	593	624	657	5.23%
Accra West	33	Cantonment 2	405	427	449	473	498	525	552	581	612	644	679	5.28%
Accra West	33	T-Nungua 1	394	414	436	459	483	508	535	563	593	624	656	5.24%
Accra West	33	Airport City 1	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Airport City 2	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Legon	601	656	716	782	853	932	1,017	1,110	1,212	1,323	1,445	9.17%
Accra West	33	Old Mampong	1	1	1	1	1	1	2	2	2	2	2	6.27%
Accra West	33	Nsawam to C	186	197	209	221	234	248	263	278	295	312	331	5.90%
Accra West	33	Wejia 1	1	1	1	1	1	1	1	2	2	2	2	6.27%
Accra West	33	Wejia 2	76	80	85	90	95	101	107	113	120	127	134	5.90%
Accra West	33	Teshie Nungua 1	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Teshie Nungua 2	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Baatsona 1	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Baatsona 2	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Ridge	603	661	724	793	869	952	1,043	1,143	1,253	1,372	1,504	9.57%
Accra West	33	Kinbu	233	247	261	277	293	310	329	348	369	390	413	5.90%
Accra West	33	Kwashieman 1	464	490	517	546	576	608	641	676	714	753	795	5.52%
Accra West	33	Quarry 1	280	296	314	332	352	372	394	418	442	468	496	5.90%
Accra West	33	Quarry 2	280	296	314	332	352	372	394	418	442	468	496	5.90%
Accra West	33	Kwashieman 2	464	490	517	546	576	608	641	677	714	754	795	5.52%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Accra West	33	Adenta	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Mampong	175	185	196	208	220	233	247	261	276	293	310	5.90%
Accra West	33	Old Mampong	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Dansoman	440	463	487	513	540	568	597	629	662	696	733	5.23%
Accra West	33	Mataheko	326	346	366	387	410	435	460	487	516	546	579	5.90%
Accra West	33	Mampong to T	186	197	209	221	234	248	263	278	295	312	331	5.90%
Accra West	33	Tema 1	417	439	462	487	512	539	568	598	629	662	697	5.28%
Accra West	33	Tema 2	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Baatsona 1	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Baatsona 2	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Kasoa	240	254	269	285	302	320	339	359	380	402	426	5.90%
Accra West	33	Wejia 1	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra West	33	Awoshie 1	534	563	595	627	662	698	737	777	820	865	913	5.51%
Accra West	33	Awoshie 2	579	621	667	716	769	826	886	952	1022	1097	1178	7.36%
Accra West	33	Kwashieman 1	198	210	222	235	249	264	279	296	313	332	351	5.90%
Accra West	33	Kwashieman 2	195	206	218	231	245	259	274	291	308	326	345	5.90%
Accra West	33	Wejia 1	327	348	370	393	418	444	472	501	533	566	602	6.27%
Accra West	33	Wejia 2	79	87	95	103	113	123	135	147	161	176	192	9.23%
Accra East	33	Kokomlemle (F)	499	531	564	600	637	677	720	765	813	864	918	6.27%
Accra East	33	Adabakra (F)	360	383	407	432	460	488	519	552	586	623	662	6.27%
Accra East	33	Okaishie 1 (G)	404	429	456	485	515	547	582	618	657	698	742	6.27%
Accra East	33	Ringway (G)	543	600	664	734	812	898	992	1097	1214	1342	1484	10.58%
Accra East	33	Korle-Bu (G)	388	412	438	466	495	526	559	594	631	671	713	6.27%
Accra East	33	Okaishie 2 (G)	420	446	474	504	535	569	605	643	683	726	772	6.27%
Accra East	33	Kinbu (G)	382	405	431	458	487	517	550	584	621	660	701	6.27%
Accra East	33	Achimota 1 (H)	638	678	720	765	813	864	919	976	1038	1103	1172	6.27%
Accra East	33	Achimota 2 (H)	521	553	588	625	664	706	750	797	847	901	957	6.27%
Accra East	33	Alajo 1 (H)	1,275	1,355	1,440	1,531	1,627	1,729	1,837	1,953	2,075	2,205	2,344	6.27%
Accra East	33	Alajo 2 (H)	1,127	1,197	1,272	1,352	1,437	1,527	1,623	1,725	1,833	1,948	2,070	6.27%
Accra East	33	Mamobi 1 (H)	961	1,021	1,085	1,153	1,226	1,302	1,384	1,471	1,563	1,661	1,766	6.27%
Accra East	33	Mamobi 2 (H)	631	671	713	758	806	856	910	967	1,028	1,092	1,161	6.27%
Accra East	33	Mamobi 3 (H)	1,146	1,218	1,294	1,376	1,462	1,551	1,651	1,755	1,865	1,982	2,106	6.27%
Accra East	33	Legon (H)	629	669	711	755	803	853	906	963	1,024	1,088	1,156	6.27%
Accra East	33	Adenta (H)	629	681	736	796	861	931	1,007	1,089	1,178	1,273	1,377	8.14%
Accra East	33	Kotobabi 1 (H)	566	616	671	731	796	866	943	1,027	1,118	1,217	1,325	8.88%
Accra East	33	Kotobabi 2 (H)	468	497	528	561	596	634	674	716	761	809	859	6.27%
Accra East	33	Airport 1 (H)	903	960	1,020	1,084	1,152	1,225	1,301	1,383	1,470	1,562	1,660	6.27%
Accra East	33	Airport 2 (H)	717	778	846	919	999	1,085	1,178	1,280	1,391	1,511	1,641	8.63%
Accra East	33	Cantonment 1 (K)	323	343	365	388	412	438	465	495	526	559	594	6.27%
Accra East	33	Ringway (K)	258	274	292	310	329	350	372	395	420	447	475	6.27%
Accra East	33	Mamobi 2 (K)	444	472	502	533	567	602	640	680	723	768	817	6.27%
Accra East	33	Mamobi 1 (K)	860	914	971	1,032	1,097	1,166	1,239	1,316	1,399	1,487	1,580	6.27%
Accra East	33	Mamobi 3 (K)	515	547	581	618	656	698	741	788	837	890	946	6.27%
Accra East	33	Cantonment 2 (K)	376	400	425	452	480	510	542	576	612	651	691	6.27%
Accra East	33	Ridge (K)	414	440	468	497	529	562	597	635	674	717	762	6.27%
Accra East	33	T-Nungua 2 (L)	383	407	432	459	488	519	551	586	623	662	703	6.27%
Accra East	33	Cantonment 2 (L)	298	316	336	357	380	403	429	456	484	515	547	6.27%
Accra East	33	Cantonment 1 (L)	478	508	540	574	610	648	689	732	778	827	879	6.27%
Accra East	33	T-Nungua 1 (L)	308	328	348	370	393	418	444	472	502	533	566	6.27%
Accra East	33	Airport City 1 (L)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	33	Airport City 2 (L)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	33	Legon (M)	613	652	693	736	782	831	883	939	998	1,060	1,127	6.27%
Accra East	33	Old Mampong (M)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	33	Teshie Nungua 1 (Q)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	33	Teshie Nungua 2 (Q)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	33	Baatsona 1 (Q)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	33	Baatsona 2 (Q)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	33	Adenta (T)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	33	Mampong (T)	342	364	386	411	437	464	493	524	557	592	629	6.27%
Accra East	33	Old Mampong (T)	335	356	378	402	427	454	482	513	545	579	615	6.27%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Accra East	33	Mampong to T (W)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	33	Tema 1 (Y)	400	434	472	512	556	604	656	713	774	841	913	8.61%
Accra East	33	Tema 2 (Y)	439	466	496	527	560	595	632	672	714	759	807	6.27%
Accra East	33	Baatsona 1 (Y)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	33	Baatsona 2 (Y)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	11	F15(FK02)	336	357	379	403	428	455	484	514	546	581	617	6.27%
Accra East	11	F11(FD19)	354	376	400	425	451	480	510	542	576	612	650	6.27%
Accra East	11	F10(FD42)	255	271	288	306	325	346	367	391	415	441	469	6.27%
Accra East	11	F06(F11)	213	226	240	255	271	288	306	325	346	368	391	6.27%
Accra East	11	F05(F01)	244	260	276	293	312	331	352	374	398	423	449	6.27%
Accra East	11	F04(FD48)	288	285	302	321	342	363	388	410	436	463	492	6.27%
Accra East	11	F03(FD38)	276	294	312	332	352	375	398	423	450	478	508	6.27%
Accra East	11	F13(FK01)	116	123	131	139	148	157	167	177	188	200	213	6.27%
Accra East	11	G21(G25)	329	350	372	395	420	447	475	504	536	570	605	6.27%
Accra East	11	G19(G60)	319	339	360	383	407	432	459	488	519	551	586	6.27%
Accra East	11	G18(G32)	191	202	213	224	237	250	264	278	294	310	327	5.93%
Accra East	11	G08(G64)	287	305	324	344	366	389	413	439	467	496	527	6.27%
Accra East	11	G12(G47)	308	328	348	370	393	418	444	472	502	533	566	6.27%
Accra East	11	G02(G33)	276	294	312	332	352	375	398	423	450	478	508	6.27%
Accra East	11	G07(G06)	228	243	258	274	291	310	329	350	372	395	420	6.27%
Accra East	11	G13(G56)	255	271	288	306	325	346	367	391	415	441	469	6.27%
Accra East	11	G05	174	190	206	225	244	266	290	315	343	373	406	8.85%
Accra East	11	G04(G351)	255	271	288	306	325	346	367	391	415	441	469	6.27%
Accra East	11	G03(GE19)	234	248	264	281	298	317	337	358	380	404	430	6.27%
Accra East	11	G11(G13)	266	282	300	319	339	360	383	407	432	459	488	6.27%
Accra East	11	H02(H351)	411	437	465	494	525	558	593	630	669	711	756	6.27%
Accra East	11	H04(H07)	282	299	318	338	359	382	406	431	458	487	518	6.27%
Accra East	11	H05(H06)	323	343	365	388	412	438	465	495	526	559	594	6.27%
Accra East	11	H07(H35)	260	277	294	313	332	353	375	399	424	450	479	6.27%
Accra East	11	H08(H24)	289	317	337	358	381	405	430	457	486	516	549	6.27%
Accra East	11	H10(H10)	298	316	336	357	380	403	429	456	484	515	547	6.27%
Accra East	11	K03(K09)	230	253	277	304	333	365	401	440	482	529	580	9.68%
Accra East	11	K04(K10)	303	322	342	364	386	411	436	464	493	524	557	6.27%
Accra East	11	K06(K60)	324	344	366	389	413	439	467	496	527	561	596	6.27%
Accra East	11	K10(K61)	210	224	238	253	268	285	303	322	342	364	387	6.27%
Accra East	11	K11(K06)	308	328	348	370	393	418	444	472	502	533	566	6.27%
Accra East	11	K12(K07)	248	263	280	297	316	336	357	379	403	428	455	6.27%
Accra East	11	K13(K13)	287	305	324	344	366	389	413	439	467	496	527	6.27%
Accra East	11	K05(K150)	368	391	415	441	469	498	530	563	598	636	676	6.27%
Accra East	11	L13(Burma Camp 1)	324	344	366	389	413	439	467	496	527	561	596	6.27%
Accra East	11	L12(Burma Camp 3)	201	218	237	257	279	303	329	357	387	420	456	8.56%
Accra East	11	L11(L01)	276	294	312	332	352	375	398	423	450	478	508	6.27%
Accra East	11	L10(L22)	218	232	246	262	278	295	314	334	355	377	400	6.27%
Accra East	11	L05(Burma Camp 2)	308	328	348	370	393	418	444	472	502	533	566	6.27%
Accra East	11	L04(L03)	234	248	264	281	298	317	337	358	380	404	430	6.27%
Accra East	11	L03(L02)	298	316	336	357	380	403	429	456	484	515	547	6.27%
Accra East	11	L06(L12)	292	315	341	368	398	430	464	501	542	585	632	8.04%
Accra East	11	M01(Old Legon 1)	393	418	444	472	502	533	567	602	640	680	723	6.27%
Accra East	11	M02(Workshop)	43	45	48	51	54	58	61	65	69	74	78	6.27%
Accra East	11	M03(University 1)	244	260	276	293	312	331	352	374	398	423	449	6.27%
Accra East	11	M05(Old Legon 2)	298	316	336	357	380	403	429	456	484	515	547	6.27%
Accra East	11	M07(Madina)	477	521	569	621	678	740	808	882	962	1,051	1,147	9.17%
Accra East	11	M08(Kwabena)	487	517	550	584	621	660	701	745	792	842	895	6.27%
Accra East	11	M10(University 2)	222	236	251	267	283	301	320	340	361	384	408	6.27%
Accra East	11	G01(Gold Spintex)	266	282	300	319	339	360	383	407	432	459	488	6.27%
Accra East	11	G03(Teshie 1)	509	541	575	611	649	690	733	779	828	880	936	6.27%
Accra East	11	G07(Teshie 2)	391	416	442	469	499	530	563	599	636	676	719	6.27%
Accra East	11	G06(Teshie 3)	383	407	432	459	488	519	551	586	623	662	703	6.27%
Accra East	11	R13	182	195	209	224	240	258	276	296	317	340	364	7.17%
Accra East	11	R12	308	328	348	370	393	418	444	472	502	533	566	6.27%
Accra East	11	R11	298	316	336	357	380	403	429	456	484	515	547	6.27%

LOCATION	Feeder Voltage	FEEDER ID	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Annual growth
Accra East	11	R10	79	84	89	94	100	107	113	120	128	136	145	6.27%
Accra East	11	R05	185	201	218	237	257	279	302	328	356	386	418	8.47%
Accra East	11	R04	164	174	185	196	209	222	236	251	266	283	301	6.27%
Accra East	11	R03	217	235	255	277	300	325	353	383	415	450	488	8.45%
Accra East	11	R02	285	303	322	342	363	386	410	436	463	493	523	6.27%
Accra East	11	T03(Adenta Est 1)	441	469	498	529	563	598	635	675	718	763	811	6.27%
Accra East	11	T04(Redcol)	441	469	498	529	563	598	635	675	718	763	811	6.27%
Accra East	11	T09(Agbogba)	389	420	452	488	526	567	611	659	711	766	826	7.82%
Accra East	11	T10(Odowa)	218	232	246	262	278	295	314	334	355	377	400	6.27%
Accra East	11	T11(Pantang)	277	295	313	333	354	376	400	425	451	480	510	6.27%
Accra East	11	T02(Adenta Est 2)	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	11	Akropong W03	181	192	204	217	230	245	260	277	294	312	332	6.27%
Accra East	11	Pedulase	132	140	148	157	166	176	187	198	209	222	235	5.90%
Accra East	11	Tetteh Quashie	0	0	0	0	0	0	0	0	0	0	0	6.27%
Accra East	11	Y11(Spintex)	496	527	561	596	633	673	715	760	806	858	912	6.27%
Accra East	11	Y03(J & Z)	314	333	354	376	400	425	452	480	510	542	576	6.27%
Accra East	11	Y04(Johnson Wax)	464	494	525	557	592	630	669	711	756	803	854	6.27%
Accra East	11	Y09(Coca Cola)	319	339	360	383	407	432	459	488	519	551	586	6.27%
Accra East	11	Y10(Texpo)	505	536	570	606	644	684	727	773	821	873	928	6.27%
Accra East	11	Y02(Old Spintex)	262	278	296	315	335	356	378	402	427	454	482	6.27%
Accra East	11	Y12	0	0	0	0	0	0	0	0	0	0	0	6.27%

VOLTA RIVER AUTHORITY
Northern Electricity Department

Maximum Demand (2007) and Forecast Maximum Demand (2017) at Bulk Supply Points

Location	Feeder ID	Length (km)	Conductor Type (sq. mm)	2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Growth rate %	
				S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)		S (MVA)
SAWLA																											
Damongo	38F4Y	84.00	150AAC	0.71	0.73	0.76	0.79	0.82	0.85	0.88	0.91	0.95	0.98	1.02	1.07	1.12	1.17	1.22	1.27	1.32	1.37	1.42	1.47	1.52	1.57	1.62	3.75%
Sawla Town	38F5Y	4.50	50 AAC	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	3.75%
Bole	38F3Y	25.20	150AAC (22km), 50AAC(3.2km)	0.49	0.51	0.53	0.55	0.57	0.59	0.61	0.63	0.66	0.68	0.71	0.73	0.76	0.79	0.82	0.85	0.88	0.91	0.95	0.98	1.02	1.07	1.12	3.75%
Lawra/Soboof/Ermon	WAF1Y	31.2 from Dornwline	150AAC	0.24	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.45	0.46	0.47	3.75%
Jirapa/Nadowii/Kaleo	WAF1Y	47.9 from Wa	150AAC	0.64	0.66	0.69	0.71	0.74	0.77	0.80	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.04	1.07	1.10	1.13	1.16	1.19	1.22	1.25	1.28	3.75%
Nandom/Hamile	WAF1Y	77.1 from Nadowii	150AAC	1.13	1.17	1.22	1.26	1.31	1.36	1.41	1.46	1.52	1.57	1.63	1.69	1.74	1.79	1.84	1.89	1.94	1.99	2.04	2.09	2.14	2.19	2.24	3.75%
Wa F1	479BF1	5.90	95XPLE(0.6km), 50AAC(5.3km)	1.42	1.49	1.56	1.63	1.71	1.78	1.87	1.95	2.04	2.14	2.24	2.34	2.44	2.54	2.64	2.74	2.84	2.94	3.04	3.14	3.24	3.34	3.44	4.61%
Wa F2	479BF2	11.60	100AAC(4.4km), 50AAC(3.7km), 120AAC(3.5km)	1.10	1.14	1.18	1.22	1.27	1.31	1.36	1.41	1.46	1.52	1.57	1.63	1.68	1.74	1.79	1.84	1.89	1.94	1.99	2.04	2.09	2.14	2.19	3.66%
Wa F3	479BF3	3.72	95XPLE(0.12km), 50AAC(3.6km)	1.61	1.69	1.77	1.85	1.94	2.04	2.14	2.24	2.34	2.44	2.54	2.64	2.74	2.84	2.94	3.04	3.14	3.24	3.34	3.44	3.54	3.64	3.74	4.84%
TOTAL (Sawla S/S)				7.23	7.50	7.78	8.07	8.37	8.68	9.01	9.35	9.70	10.06	10.44	10.82	11.20	11.58	11.96	12.34	12.72	13.10	13.48	13.86	14.24	14.62	3.75%	
YENDI																											
Gushiegu	35F1Y			1.17	1.20	1.24	1.28	1.32	1.36	1.40	1.44	1.48	1.53	1.58	1.63	1.67	1.71	1.76	1.81	1.86	1.91	1.96	2.01	2.06	2.11	2.16	3.06%
Gushiegu Township	35F1Y	61 from Yendi	150AAC	0.45	0.46	0.48	0.49	0.51	0.52	0.54	0.55	0.57	0.59	0.61	0.63	0.65	0.67	0.69	0.71	0.73	0.75	0.77	0.79	0.81	0.83	0.85	3.06%
Sakogu	35F1Y	73 from Gushiegu	150AAC	0.38	0.39	0.40	0.41	0.42	0.44	0.45	0.46	0.48	0.49	0.51	0.52	0.54	0.55	0.57	0.59	0.61	0.63	0.65	0.67	0.69	0.71	0.73	3.06%
Tingbinsi	35F1Y	44 from Sakogu	150AAC	0.38	0.39	0.40	0.42	0.43	0.44	0.45	0.47	0.48	0.50	0.51	0.53	0.54	0.56	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.74	3.06%
Nakpanduri	35F1Y	24 from Sakogu	150AAC	0.38	0.39	0.40	0.42	0.43	0.44	0.45	0.47	0.48	0.50	0.51	0.53	0.54	0.56	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.74	3.06%
Saboba	35F2Y	44 from Yendi	150AAC	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36	0.37	0.38	0.39	0.40	0.41	0.42	3.25%
Zabzugu	35F3Y	47 from Yendi	150AAC	0.43	0.44	0.46	0.47	0.49	0.50	0.52	0.54	0.56	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.74	0.76	0.78	0.80	0.82	0.84	3.39%
Yendi Township	35F4Y	10	50AAC	1.03	1.07	1.11	1.16	1.20	1.25	1.29	1.34	1.39	1.45	1.50	1.55	1.60	1.65	1.70	1.75	1.80	1.85	1.90	1.95	2.00	2.05	2.10	3.82%
Bimbilla	35F5Y	64 from Yendi	50 AAC	4.44	4.58	4.72	4.87	5.02	5.18	5.34	5.51	5.68	5.85	6.03	6.21	6.39	6.57	6.75	6.93	7.11	7.29	7.47	7.65	7.83	8.01	8.19	3.11%
Bimbilla	35F5Y	78 from Bimbilla	150 AAC	2.07	2.13	2.20	2.27	2.34	2.41	2.49	2.56	2.64	2.72	2.81	2.89	2.97	3.05	3.13	3.21	3.29	3.37	3.45	3.53	3.61	3.69	3.77	3.11%
Salaqa	35F5Y	142	150 AAC	1.84	1.90	1.96	2.02	2.08	2.14	2.21	2.28	2.35	2.42	2.50	2.57	2.64	2.71	2.78	2.85	2.92	2.99	3.06	3.13	3.20	3.27	3.34	3.11%
Kete-Krachi	35F5Y	91 from Bimbilla	150 AAC	1.84	1.90	1.96	2.02	2.08	2.14	2.21	2.28	2.35	2.42	2.50	2.57	2.64	2.71	2.78	2.85	2.92	2.99	3.06	3.13	3.20	3.27	3.34	3.11%
TOTAL (Yendi substation)				9.45	9.84	10.24	10.66	11.09	11.55	12.02	12.51	13.02	13.56	14.11	14.67	15.24	15.81	16.40	16.99	17.59	18.19	18.80	19.41	20.02	20.63	21.24	4.09%
SUNYANI																											
Sunyani - Bereku	27F1Y	31 from Sunyani	120AAC	11.48	11.98	12.50	13.05	13.61	14.21	14.82	15.47	16.14	16.84	17.57	18.33	19.10	19.89	20.69	21.51	22.34	23.19	24.05	24.92	25.80	26.69	27.59	4.35%
Drobo	BRYP1	66 from Bereku	120AAC	3.33	3.60	3.88	4.19	4.53	4.89	5.27	5.69	6.14	6.63	7.16	7.71	8.28	8.87	9.48	10.11	10.75	11.41	12.08	12.76	13.45	14.15	14.86	7.94%
Dormaa	BRYP2	47 from Bereku	120AAC	3.47	3.63	3.80	3.98	4.16	4.35	4.56	4.77	4.99	5.22	5.46	5.72	5.99	6.27	6.56	6.86	7.17	7.49	7.82	8.16	8.51	8.87	9.24	4.62%
Bereku	BRBF1	16Cu(2.6km), 50AAC(20.4km)		1.74	1.77	1.81	1.84	1.88	1.92	1.96	1.99	2.03	2.07	2.11	2.15	2.19	2.23	2.27	2.31	2.35	2.39	2.43	2.47	2.51	2.55	2.59	1.97%
Bereku	BRBF2	6	50AAC	1.29	1.31	1.34	1.36	1.39	1.41	1.44	1.47	1.49	1.52	1.55	1.58	1.61	1.64	1.67	1.70	1.73	1.76	1.79	1.82	1.85	1.88	1.91	1.85%
Bereku	BRBF3	8	16Cu(1.5mm), 50AAC(6.5km)	1.67	1.77	1.89	2.01	2.14	2.28	2.43	2.59	2.76	2.94	3.13	3.33	3.54	3.76	3.99	4.23	4.48	4.74	5.01	5.29	5.58	5.88	6.19	6.50%
Sunyani - Mim	27F5Y	54	150AAC	7.63	7.98	8.35	8.74	9.15	9.57	10.01	10.48	10.96	11.47	12.00	12.54	13.09	13.66	14.24	14.83	15.43	16.04	16.66	17.29	17.93	18.58	19.24	4.63%
Mim/Goaso/Hwidliem	MMFY1	441		4.41	4.61	4.83	5.05	5.28	5.53	5.78	6.05	6.33	6.63	6.93	7.24	7.56	7.89	8.23	8.58	8.94	9.30	9.67	10.05	10.44	10.84	4.63%	
Mim		10	100AAC	2.07	2.16	2.27	2.37	2.48	2.59	2.71	2.84	2.97	3.11	3.25	3.40	3.55	3.70	3.86	4.02	4.18	4.35	4.52	4.69	4.86	5.04	5.21	4.63%
Goaso		32 from Mim	100AAC	1.85	1.94	2.03	2.12	2.22	2.32	2.43	2.54	2.66	2.78	2.91	3.04	3.17	3.31	3.45	3.59	3.74	3.89	4.04	4.19	4.34	4.49	4.64	4.63%
Hwidliem		14 from Mim	100AAC	0.92	0.96	1.01	1.05	1.10	1.15	1.21	1.26	1.32	1.38	1.45	1.51	1.58	1.65	1.72	1.79	1.86	1.93	2.00	2.07	2.14	2.21	2.28	4.63%
Scanstyle	MMFY2	5	50AAC	0.96	1.05	1.16	1.27	1.40	1.54	1.69	1.86	2.04	2.24	2.46	2.69	2.94	3.20	3.47	3.75	4.04	4.34	4.64	4.95	5.26	5.58	5.91	4.63%
Ayuni	MMFY3	1.5	120AAC	2.19	2.28	2.36	2.46	2.55	2.65	2.75	2.86	2.97	3.09	3.21	3.34	3.47	3.61	3.75	3.90	4.05	4.20	4.36	4.52	4.68	4.84	3.90%	
Sunyani - Bechem	27F4Y	344	3.60 3.77 3.95 4.13 4.32 4.52 4.73 4.95 5.18 5.42 5.64 5.87 6.10 6.34 6.58 6.82 7.06 7.30 7.54 7.78 8.02 8.26 8.50 8.74 8.98 9.22 9.46 9.70 9.94 10.18 10.42 10.66 10.90 11.14 11.38 11.62 11.86 12.10 12.34 12.58 12.82 13.06 13.30 13.54 13.78 14.02 14.26 14.50 14.74 14.98 15.22 15.46 15.70 15.94 16.18 16.42 16.66 16.90 17.14 17.38 17.62 17.86 18.10 18.34 18.58 18.82 19.06 19.30 19.54 19.78 20.02 20.26 20.50 20.74 20.98 21.22 21.46 21.70 21.94 22.18 22.42 22.66 22.90 23.14 23.38 23.62 23.86 24.10 24.34 24.58 24.82 25.06 25.30 25.54 25.78 26.02 26.26 26.50 26.74 26.98 27.22 27.46 27.70 27.94 28.18 28.42 28.66 28.90 29.14 29.38 29.62 29.86 30.10 30.34 30.58 30.82 31.06 31.30 31.54 31.78 32.02 32.26 32.50 32.74 32.98 33.22 33.46 33.70 33.94 34.18 34.42 34.66 34.90 35.14 35.38 35.62 35.86 36.10 36.34 36.58 36.82 37.06 37.30 37.54 37.78 38.02 38.26 38.50 38.74 38.98 39.22 39.46 39.70 39.94 40.18 40.42 40.66 40.90 41.14 41.38 41.62 41.86 42.10 42.34 42.58 42.82 43.06 43.30 43.54 43.78 44.02 44.26 44.50 44.74 44.98 45.22 45.46 45.70 45.94 46.18 46.42 46.66 46.90 47.14 47.38 47.62 47.86 48.10 48.34 48.58 48.82 49.06 49.30 49.54 49.78 50.02 50.26 50.50 50.74 50.98 51.22 51.46 51.70 51.94 52.18 52.42 52.66 52.90 53																								

Location	Feeder ID	Length (Km)	Conductor Type(sq. mm)	2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Growth rate %	
				S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)		S (MVA)
BOLGATANGA																											
BOLGA	29F1B	11.6	50AAC(2km), 120AAC(9.6km)	2.16	2.32	2.50	2.70	2.91	3.13	3.37	3.63	3.91	4.22	4.54	4.89	5.25	5.63	6.03	6.45	6.89	7.35	7.83	8.33	8.84	9.36	7.73%	
BOLGA	29F4B	22.12	50AAC(4.8km), 120AAC(14.8km), 100AAC(2.5km)	2.79	2.91	3.04	3.17	3.31	3.45	3.60	3.76	3.92	4.09	4.27	4.45	4.64	4.83	5.03	5.24	5.45	5.67	5.90	6.14	6.39	6.65	4.35%	
BOLGA	29F6B	18.4	50AAC(7.6km), 100AAC(10.8km)	2.03	2.18	2.35	2.52	2.72	2.92	3.15	3.38	3.64	3.92	4.22	4.54	4.89	5.25	5.63	6.03	6.45	6.89	7.35	7.83	8.33	8.84	7.60%	
NAVROGO	29F2Y	20	150AAC	4.04	4.36	4.71	5.08	5.48	5.92	6.39	6.89	7.44	8.03	8.66	9.31	10.00	10.71	11.45	12.21	13.00	13.81	14.64	15.50	16.39	17.30	7.92%	
NAVROGO	NGBF1	2	50AAC	0.37	0.40	0.43	0.46	0.50	0.54	0.58	0.63	0.68	0.73	0.79	0.85	0.91	0.97	1.03	1.10	1.18	1.26	1.34	1.43	1.52	1.61	7.90%	
NAVROGO	NGBF2	6.6	50AAC(4.8km), 120AAC(1.8km)	0.64	0.69	0.75	0.81	0.87	0.94	1.02	1.10	1.18	1.28	1.38	1.48	1.59	1.70	1.82	1.94	2.07	2.21	2.36	2.51	2.67	2.83	7.90%	
NAVROGO	NGBF3	16.1	120AAC	0.55	0.60	0.64	0.69	0.75	0.81	0.87	0.94	1.01	1.09	1.18	1.27	1.36	1.45	1.54	1.64	1.74	1.84	1.94	2.04	2.14	2.24	7.90%	
SAWDEMA	NGFY	21	120AAC	0.48	0.52	0.56	0.61	0.66	0.71	0.76	0.82	0.89	0.96	1.04	1.12	1.20	1.28	1.36	1.45	1.54	1.63	1.72	1.81	1.90	2.00	7.92%	
TUMIU	NGF3Y	19	150AAC	0.98	1.05	1.14	1.23	1.32	1.43	1.54	1.66	1.80	1.94	2.09	2.25	2.41	2.58	2.75	2.93	3.12	3.31	3.51	3.71	3.92	4.13	7.91%	
PO	NGF3Y	19	120AAC	0.43	0.46	0.50	0.53	0.58	0.62	0.67	0.72	0.78	0.84	0.91	0.98	1.05	1.12	1.20	1.28	1.36	1.44	1.52	1.61	1.70	1.79	7.89%	
NAVRONGO PRIMARY S/S	S/S Capacity	3.10		3.35	3.61	3.90	4.21	4.54	4.90	5.29	5.71	6.16	6.65	7.17	7.71	8.28	8.87	9.48	10.11	10.76	11.43	12.12	12.83	13.56	14.31	7.92%	
BAWKU	29F3Y	30.7	120AAC	4.33	4.69	5.08	5.49	5.95	6.44	6.97	7.54	8.16	8.83	9.56	10.33	11.14	12.00	12.90	13.84	14.81	15.82	16.87	17.96	19.08	20.23	8.23%	
BAWKU	BKBF1	4	50AAC	1.61	1.72	1.83	1.96	2.09	2.23	2.38	2.54	2.71	2.89	3.09	3.29	3.50	3.72	3.95	4.19	4.44	4.70	4.97	5.25	5.54	5.84	6.73%	
BAWKU	BKBF2	18	50AAC	1.15	1.23	1.32	1.41	1.52	1.62	1.74	1.86	2.00	2.14	2.29	2.45	2.61	2.78	2.95	3.13	3.32	3.51	3.71	3.92	4.13	4.35	7.19%	
BAWKU	BKYF1	30	120AAC	1.45	1.54	1.63	1.73	1.84	1.95	2.07	2.20	2.34	2.48	2.63	2.79	2.95	3.12	3.29	3.47	3.65	3.84	4.03	4.23	4.44	4.65	6.17%	
BAWKU	BKYF2	30.6	120AAC	0.47	0.50	0.53	0.56	0.59	0.63	0.67	0.71	0.75	0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.15	1.20	1.25	1.30	1.35	1.40	6.17%	
BAWKU PRIMARY S/S	S/S Capacity	3.10		3.36	3.64	3.93	4.26	4.61	4.99	5.40	5.84	6.33	6.85	7.40	7.97	8.56	9.17	9.80	10.45	11.13	11.83	12.55	13.29	14.05	14.83	8.23%	
WALEWALE	29F4Y	30	100AAC	0.86	0.93	1.01	1.09	1.18	1.27	1.38	1.49	1.61	1.74	1.88	2.02	2.17	2.33	2.49	2.66	2.84	3.02	3.21	3.40	3.60	3.81	4.02	8.12%
Total(Bolga substation)				14.02	14.90	15.83	16.81	17.86	18.98	20.16	21.42	22.75	24.17	25.68	27.26	28.91	30.64	32.45	34.34	36.31	38.36	40.50	42.73	45.05	47.47	6.24%	
TECHIMAN																											
TECHIMAN *	26F1B	12	100AAC	2.70	2.80	2.92	3.03	3.16	3.28	3.41	3.55	3.69	3.84	3.99	4.14	4.30	4.46	4.62	4.79	4.96	5.13	5.31	5.49	5.67	5.85	4.00%	
TECHIMAN *	26F2B	12	100AAC	1.93	2.01	2.09	2.17	2.26	2.35	2.44	2.54	2.64	2.75	2.86	2.97	3.08	3.19	3.30	3.41	3.52	3.63	3.74	3.85	3.96	4.07	4.00%	
AKOMADAN	26F3B	30	100AAC	1.96	2.03	2.12	2.20	2.29	2.38	2.48	2.58	2.68	2.79	2.90	3.01	3.12	3.23	3.34	3.45	3.56	3.67	3.78	3.89	4.00	4.11	4.00%	
ATERUBU	26F1Y	21.4	120AAC	6.53	6.72	6.92	7.13	7.34	7.55	7.77	8.00	8.24	8.48	8.73	8.98	9.24	9.50	9.77	10.04	10.32	10.60	10.89	11.18	11.48	11.78	2.95%	
Nkoranza	26F1Y	22 From Techiman	120AAC	2.47	2.54	2.62	2.70	2.77	2.86	2.94	3.03	3.12	3.21	3.30	3.39	3.48	3.57	3.66	3.75	3.84	3.93	4.02	4.11	4.20	4.29	2.95%	
Ejura	26F1Y	46 From Nkoranza	120AAC	1.11	1.14	1.18	1.21	1.25	1.28	1.32	1.36	1.40	1.44	1.48	1.52	1.56	1.60	1.64	1.68	1.72	1.76	1.80	1.84	1.88	1.92	2.95%	
Atebubu Township	26F1Y	60 From Ejura	120AAC	1.05	1.08	1.11	1.15	1.18	1.21	1.25	1.29	1.32	1.36	1.40	1.44	1.48	1.52	1.56	1.60	1.64	1.68	1.72	1.76	1.80	1.84	2.95%	
Yeji	26F1Y	62 From Atebubu	120AAC	1.01	1.04	1.07	1.10	1.13	1.17	1.20	1.24	1.27	1.31	1.35	1.39	1.43	1.47	1.51	1.55	1.59	1.63	1.67	1.71	1.75	1.79	2.95%	
Kwame Danso	26F1Y	86 From Atebubu	120AAC	0.89	0.92	0.94	0.97	1.00	1.03	1.06	1.09	1.12	1.16	1.19	1.22	1.25	1.28	1.31	1.34	1.37	1.40	1.43	1.46	1.49	1.52	2.95%	
WENCHI	26F2Y	31	120AAC	2.33	2.42	2.52	2.62	2.73	2.83	2.95	3.07	3.19	3.32	3.45	3.58	3.71	3.84	3.97	4.10	4.23	4.36	4.50	4.63	4.76	4.89	4.00%	
WENCHI	WHF1B	12	50AAC	0.58	0.61	0.63	0.66	0.68	0.71	0.74	0.77	0.80	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.04	1.07	1.10	1.13	1.16	1.19	4.00%	
WENCHI	WHF2B	7.7	50AAC	0.48	0.50	0.52	0.54	0.56	0.58	0.60	0.63	0.65	0.68	0.71	0.74	0.77	0.80	0.83	0.86	0.89	0.92	0.95	0.98	1.01	1.04	4.00%	
WENCHI	WHFY	35	120AAC	0.85	0.88	0.92	0.96	0.99	1.03	1.07	1.12	1.16	1.21	1.26	1.31	1.35	1.40	1.45	1.50	1.55	1.60	1.65	1.70	1.75	1.80	4.00%	
WENCHI PRIMARY S/S	S/S Capacity	2.33		2.42	2.52	2.62	2.73	2.83	2.95	3.07	3.19	3.32	3.45	3.58	3.71	3.84	3.97	4.10	4.23	4.36	4.50	4.63	4.76	4.89	5.02	4.00%	
KINTAMPO	26F5Y	57	150AAC	1.03	1.07	1.11	1.16	1.20	1.25	1.30	1.35	1.41	1.47	1.52	1.57	1.63	1.68	1.74	1.79	1.84	1.89	1.94	1.99	2.04	2.09	4.00%	
TECHIMAN BSP	S/S Capacity	13.75		14.11	14.48	14.86	15.24	15.64	16.05	16.47	16.90	17.34	17.79	18.24	18.69	19.14	19.59	20.04	20.49	20.94	21.39	21.84	22.29	22.74	23.19	2.61%	
TAMALE																											
TAMALE	28F2B	2.48		2.48	2.57	2.67	2.76	2.86	2.97	3.07	3.18	3.30	3.42	3.54	3.66	3.78	3.91	4.03	4.16	4.29	4.42	4.55	4.68	4.81	4.94	3.61%	
TAMALE	28F3B	4.49		4.66	4.83	5.00	5.18	5.37	5.56	5.76	5.96	6.19	6.41	6.64	6.87	7.11	7.35	7.59	7.83	8.07	8.31	8.55	8.79	9.03	9.27	3.61%	
TAMALE	28F4B	23.7	185ALXPLE(1km), 100AAC(22.7km)	2.63	2.72	2.82	2.92	3.03	3.14	3.25	3.37	3.49	3.62	3.75	3.88	4.01	4.14	4.27	4.40	4.53	4.66	4.79	4.92	5.05	5.18	3.61%	
TAMALE	28F6B	4.42	4.58	4.75	4.92	5.10	5.28	5.47	5.67	5.87	6.09	6.31	6.54	6.77	7.00	7.23	7.46	7.69	7.92	8.15	8.38	8.61	8.84	9.07	9.30	3.61%	
TAMALE	28F7B	2.51	2.60	2.69	2.79	2.89	2.99	3.10	3.22	3.33	3.45	3.58	3.71	3.84	3.97	4.10	4.23	4.36	4.50	4.63	4.76	4.89	5.02	5.15	5.28	3.61%	
TAMALE	28F8B	2.61	2.71	2.81	2.91	3.01	3.12	3.23	3.35	3.47	3.60	3.73	3.86	3.99	4.12	4.25	4.38	4.51	4.64	4.77	4.90	5.03	5.16	5.29	5.42	3.61%	
TAMALE	28F9B	3.27	3.39	3.51	3.64	3.77	3.91	4.05	4.20	4.35	4.51	4.67	4.83	4.99	5.15	5.31	5.47	5.63	5.79	5.95	6.11	6.27	6.43	6.59	6.75	3.61%	
DALUN	28F1Y	4.51	4.68	4.85	5.02	5.20	5.39																				

VOLTA RIVER AUTHORITY
Northern Electricity Department

Maximum Demand (2007) and Forecast Maximum Demand (2017) at Bulk Supply Points

Location	Feeder ID	Length (km)	Conductor Type (sq. mm)	2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Growth rate %																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
				S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)		S (MVA)	S (MVA)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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Damongo	38F4Y	84.00	150AAC	0.71	0.74	0.77	0.81	0.84	0.88	0.92	0.96	1.00	1.05	1.09	1.13	1.17	1.21	1.25	1.29	1.33	1.37	1.41	1.45	1.49	1.53	1.57	1.61	1.65	1.69	1.73	1.77	1.81	1.85	1.89	1.93	1.97	2.01	2.05	2.09	2.13	2.17	2.21	2.25	2.29	2.33	2.37	2.41	2.45	2.49	2.53	2.57	2.61	2.65	2.69	2.73	2.77	2.81	2.85	2.89	2.93	2.97	3.01	3.05	3.09	3.13	3.17	3.21	3.25	3.29	3.33	3.37	3.41	3.45	3.49	3.53	3.57	3.61	3.65	3.69	3.73	3.77	3.81	3.85	3.89	3.93	3.97	4.01	4.05	4.09	4.13	4.17	4.21	4.25	4.29	4.33	4.37	4.41	4.45	4.49	4.53	4.57	4.61	4.65	4.69	4.73	4.77	4.81	4.85	4.89	4.93	4.97	5.01	5.05	5.09	5.13	5.17	5.21	5.25	5.29	5.33	5.37	5.41	5.45	5.49	5.53	5.57	5.61	5.65	5.69	5.73	5.77	5.81	5.85	5.89	5.93	5.97	6.01	6.05	6.09	6.13	6.17	6.21	6.25	6.29	6.33	6.37	6.41	6.45	6.49	6.53	6.57	6.61	6.65	6.69	6.73	6.77	6.81	6.85	6.89	6.93	6.97	7.01	7.05	7.09	7.13	7.17	7.21	7.25	7.29	7.33	7.37	7.41	7.45	7.49	7.53	7.57	7.61	7.65	7.69	7.73	7.77	7.81	7.85	7.89	7.93	7.97	8.01	8.05	8.09	8.13	8.17	8.21	8.25	8.29	8.33	8.37	8.41	8.45	8.49	8.53	8.57	8.61	8.65	8.69	8.73	8.77	8.81	8.85	8.89	8.93	8.97	9.01	9.05	9.09	9.13	9.17	9.21	9.25	9.29	9.33	9.37	9.41	9.45	9.49	9.53	9.57	9.61	9.65	9.69	9.73	9.77	9.81	9.85	9.89	9.93	9.97	10.01	10.05	10.09	10.13	10.17	10.21	10.25	10.29	10.33	10.37	10.41	10.45	10.49	10.53	10.57	10.61	10.65	10.69	10.73	10.77	10.81	10.85	10.89	10.93	10.97	11.01	11.05	11.09	11.13	11.17	11.21	11.25	11.29	11.33	11.37	11.41	11.45	11.49	11.53	11.57	11.61	11.65	11.69	11.73	11.77	11.81	11.85	11.89	11.93	11.97	12.01	12.05	12.09	12.13	12.17	12.21	12.25	12.29	12.33	12.37	12.41	12.45	12.49	12.53	12.57	12.61	12.65	12.69	12.73	12.77	12.81	12.85	12.89	12.93	12.97	13.01	13.05	13.09	13.13	13.17	13.21	13.25	13.29	13.33	13.37	13.41	13.45	13.49	13.53	13.57	13.61	13.65	13.69	13.73	13.77	13.81	13.85	13.89	13.93	13.97	14.01	14.05	14.09	14.13	14.17	14.21	14.25	14.29	14.33	14.37	14.41	14.45	14.49	14.53	14.57	14.61	14.65	14.69	14.73	14.77	14.81	14.85	14.89	14.93	14.97	15.01	15.05	15.09	15.13	15.17	15.21	15.25	15.29	15.33	15.37	15.41	15.45	15.49	15.53	15.57	15.61	15.65	15.69	15.73	15.77	15.81	15.85	15.89	15.93	15.97	16.01	16.05	16.09	16.13	16.17	16.21	16.25	16.29	16.33	16.37	16.41	16.45	16.49	16.53	16.57	16.61	16.65	16.69	16.73	16.77	16.81	16.85	16.89	16.93	16.97	17.01	17.05	17.09	17.13	17.17	17.21	17.25	17.29	17.33	17.37	17.41	17.45	17.49	17.53	17.57	17.61	17.65	17.69	17.73	17.77	17.81	17.85	17.89	17.93	17.97	18.01	18.05	18.09	18.13	18.17	18.21	18.25	18.29	18.33	18.37	18.41	18.45	18.49	18.53	18.57	18.61	18.65	18.69	18.73	18.77	18.81	18.85	18.89	18.93	18.97	19.01	19.05	19.09	19.13	19.17	19.21	19.25	19.29	19.33	19.37	19.41	19.45	19.49	19.53	19.57	19.61	19.65	19.69	19.73	19.77	19.81	19.85	19.89	19.93	19.97	20.01	20.05	20.09	20.13	20.17	20.21	20.25	20.29	20.33	20.37	20.41	20.45	20.49	20.53	20.57	20.61	20.65	20.69	20.73	20.77	20.81	20.85	20.89	20.93	20.97	21.01	21.05	21.09	21.13	21.17	21.21	21.25	21.29	21.33	21.37	21.41	21.45	21.49	21.53	21.57	21.61	21.65	21.69	21.73	21.77	21.81	21.85	21.89	21.93	21.97	22.01	22.05	22.09	22.13	22.17	22.21	22.25	22.29	22.33	22.37	22.41	22.45	22.49	22.53	22.57	22.61	22.65	22.69	22.73	22.77	22.81	22.85	22.89	22.93	22.97	23.01	23.05	23.09	23.13	23.17	23.21	23.25	23.29	23.33	23.37	23.41	23.45	23.49	23.53	23.57	23.61	23.65	23.69	23.73	23.77	23.81	23.85	23.89	23.93	23.97	24.01	24.05	24.09	24.13	24.17	24.21	24.25	24.29	24.33	24.37	24.41	24.45	24.49	24.53	24.57	24.61	24.65	24.69	24.73	24.77	24.81	24.85	24.89	24.93	24.97	25.01	25.05	25.09	25.13	25.17	25.21	25.25	25.29	25.33	25.37	25.41	25.45	25.49	25.53	25.57	25.61	25.65	25.69	25.73	25.77	25.81	25.85	25.89	25.93	25.97	26.01	26.05	26.09	26.13	26.17	26.21	26.25	26.29	26.33	26.37	26.41	26.45	26.49	26.53	26.57	26.61	26.65	26.69	26.73	26.77	26.81	26.85	26.89	26.93	26.97	27.01	27.05	27.09	27.13	27.17	27.21	27.25	27.29	27.33	27.37	27.41	27.45	27.49	27.53	27.57	27.61	27.65	27.69	27.73	27.77	27.81	27.85	27.89	27.93	27.97	28.01	28.05	28.09	28.13	28.17	28.21	28.25	28.29	28.33	28.37	28.41	28.45	28.49	28.53	28.57	28.61	28.65	28.69	28.73	28.77	28.81	28.85	28.89	28.93	28.97	29.01	29.05	29.09	29.13	29.17	29.21	29.25	29.29	29.33	29.37	29.41	29.45	29.49	29.53	29.57	29.61	29.65	29.69	29.73	29.77	29.81	29.85	29.89	29.93	29.97	30.01	30.05	30.09	30.13	30.17	30.21	30.25	30.29	30.33	30.37	30.41	30.45	30.49	30.53	30.57	30.61	30.65	30.69	30.73	30.77	30.81	30.85	30.89	30.93	30.97	31.01	31.05	31.09	31.13	31.17	31.21	31.25	31.29	31.33	31.37	31.41	31.45	31.49	31.53	31.57	31.61	31.65	31.69	31.73	31.77	31.81	31.85	31.89	31.93	31.97	32.01	32.05	32.09	32.13	32.17	32.21	32.25	32.29	32.33	32.37	32.41	32.45	32.49	32.53	32.57	32.61	32.65	32.69	32.73	32.77	32.81	32.85	32.89	32.93	32.97	33.01	33.05	33.09	33.13	33.17	33.21	33.25	33.29	33.33	33.37	33.41	33.45	33.49	33.53	33.57	33.61	33.65	33.69	33.73	33.77	33.81	33.85	33.89	33.93	33.97	34.01	34.05	34.09	34.13	34.17	34.21	34.25	34.29	34.33	34.37	34.41	34.45	34.49	34.53	34.57	34.61	34.65	34.69	34.73	34.77	34.81	34.85	34.89	34.93	34.97	35.01	35.05	35.09	35.13	35.17	35.21	35.25	35.29	35.33	35.37	35.41	35.45	35.49	35.53	35.57	35.61	35.65	35.69	35.73	35.77	35.81	35.85	35.89	35.93	35.97	36.01	36.05	36.09	36.13	36.17	36.21	36.25	36.29	36.33	36.37	36.41	36.45	36.49	36.53	36.57	36.61	36.65	36.69	36.73	36.77	36.81	36.85	36.89	36.93	36.97	37.01	37.05	37.09	37.13	37.17	37.21	37.25	37.29	37.33	37.37	37.41	37.45	37.49	37.53	37.57	37.61	37.65	37.69	37.73	37.77	37.81	37.85	37.89	37.93	37.97	38.01	38.05	38.09	38.13	38.17	38.21	38.25	38.29	38.33	38.37	38.41	38.45	38.49	38.53	38.57	38.61	38.65	38.69	38.73	38.77	38.81	38.85	38.89	38.93	38.97	39.01	39.05	39.09	39.13	39.17	39.21	39.25	39.29	39.33	39.37	39.41	39.45	39.49	39.53	39.57	39.61	39.65	39.69	39.73	39.77	39.81	39.85	39.89	39.93	39.97	40.01	40.05	40.09	40.13	40.17	40.21	40.25	40.29	40.33	40.37	40.41	40.45	40.49	40.53	40.57	40.61	40.65	40.69	40.73	40.77	40.81	40.85	40.89	40.93	40.97	41.01	41.05	41.09	41.13	41.17	41.21	41.25	41.29	41.33	41.37	41.41	41.45	41.49	41.53	41.57	41.61	41.65	41.69	41.73	41.77	41.81	41.85	41.89	41.93	41.97	42.01	42.05	42.09	42.13	42.17	42.21	42.25	42.29	42.33	42.37	42.41	42.45	42.49	42.53	42.57	42.61	42.65	42.69	42.73	42.77	42.81	42.85	42.89	42.93	42.97	43.01	43.05	43.09	43.13	43.17	43.21	43.25	43.29	43.33	43.37	43.41	43.45	43.49	43.53	43.57	43.61	43.65	43.69	43.73	43.77	43.81	43.85	43.89	43.93	43

Location	Feeder ID	Length (Km)	Conductor Type(sq. mm)	2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Growth rate %	
				S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)	S (MVA)		S (MVA)
BOLGATANGA																											
BOLGA	26F1B	11.6	50AAC(2km), 120AAC(9.6km)	2.16	2.35	2.57	2.80	3.05	3.33	3.63	3.95	4.31	4.70	5.13	5.64%												
BOLGA	26F4B	22.12	50AAC(4.8km), 120AAC(14.8km), 100AAC(2.5km)	2.79	2.95	3.11	3.28	3.46	3.66	3.86	4.08	4.30	4.54	4.79	5.56%												
BOLGA	26F6B	18.4	50AAC(7.6km), 100AAC(10.8km)	2.03	2.19	2.36	2.55	2.76	2.98	3.21	3.47	3.75	4.05	4.37	7.99%												
NAVROGO	26F2Y	20	150AAC	4.04	4.43	4.84	5.30	5.80	6.35	6.95	7.61	8.33	9.12	9.99	9.46%												
NAVROGO	NGBF1	2	50AAC	0.37	0.41	0.45	0.49	0.54	0.60	0.66	0.72	0.80	0.88	0.97	10.14%												
NAVROGO	NGBF2	6.6	50AAC(4.8km), 120AAC(1.8km)	0.64	0.70	0.74	0.84	0.92	1.01	1.10	1.21	1.32	1.45	1.58	9.41%												
NAVROGO	NGBF3	16.1	120AAC	0.55	0.61	0.67	0.73	0.80	0.88	0.97	1.07	1.17	1.29	1.41	9.85%												
SANDEMA	NGFY1	21	120AAC	0.48	0.53	0.57	0.62	0.68	0.74	0.80	0.87	0.95	1.03	1.12	8.79%												
TUMU	NGFY2	19	150AAC	0.98	1.07	1.16	1.27	1.39	1.51	1.65	1.80	1.97	2.14	2.34	9.19%												
PO	NGFY3	19	120AAC	0.43	0.46	0.51	0.55	0.60	0.66	0.72	0.79	0.86	0.94	1.02	9.16%												
NAVROGO PRIMARY SIS	S/S Capacity			3.10	3.36	3.63	3.92	4.24	4.58	4.95	5.36	5.79	6.26	6.77	8.11%												
BAWKU	29F3Y	30.7	120AAC	4.33	4.76	5.22	5.73	6.29	6.91	7.58	8.32	9.14	10.03	11.01	9.77%												
BAWKU	BKBF1	4	50AAC	1.61	1.74	1.88	2.03	2.19	2.37	2.56	2.76	2.98	3.22	3.48	8.02%												
BAWKU	BKBF2	18	50AAC	1.15	1.25	1.35	1.46	1.59	1.72	1.86	2.02	2.19	2.37	2.57	8.39%												
BAWKU	BKYF1	30	120AAC	1.45	1.57	1.69	1.83	1.98	2.14	2.32	2.51	2.71	2.94	3.18	8.18%												
BAWKU	BKYF2	30.6	120AAC	0.47	0.50	0.53	0.56	0.60	0.64	0.68	0.73	0.78	0.83	0.88	6.55%												
BAWKU PRIMARY SIS	S/S Capacity			3.10	3.42	3.77	4.15	4.58	5.04	5.56	6.12	6.75	7.44	8.20	10.20%												
WALEWALE	29F4Y	30	100AAC	0.86	0.94	1.03	1.12	1.22	1.33	1.45	1.59	1.73	1.89	2.06	9.11%												
Total(Bolga substation)				14.02	15.07	16.21	17.42	18.73	20.13	21.64	23.27	25.01	26.89	28.90	7.50%												
TECHIMAN																											
TECHIMAN *	26F1B	12	100AAC	2.70	2.81	2.93	3.06	3.19	3.32	3.46	3.61	3.76	3.92	4.09	4.25%												
TECHIMAN	26F2B	12	100AAC	1.93	2.02	2.11	2.21	2.31	2.41	2.52	2.63	2.75	2.87	3.00	4.52%												
AKOMADAN	26F3B	30	100AAC	1.96	2.06	2.17	2.28	2.40	2.53	2.66	2.80	2.95	3.11	3.27	5.27%												
ATEBUBU	26F1Y	214	120AAC	6.53	6.82	7.13	7.45	7.78	8.13	8.49	8.87	9.27	9.68	10.11	4.47%												
Nkoranza	26F1Y	22 From Techiman	120AAC	2.47	2.59	2.71	2.84	2.98	3.12	3.27	3.42	3.58	3.76	3.93	4.77%												
Ejura	26F1Y	46 From Nkoranza	120AAC	1.11	1.16	1.22	1.28	1.34	1.40	1.47	1.54	1.62	1.70	1.78	4.82%												
Atebubu Township	26F1Y	60 From Ejura	120AAC	1.05	1.08	1.12	1.15	1.19	1.23	1.27	1.31	1.35	1.39	1.44	3.19%												
Yeji	26F1Y	62 From Atebubu	120AAC	1.01	1.06	1.11	1.16	1.21	1.26	1.32	1.38	1.45	1.51	1.58	4.60%												
Kwame Danso	26F1Y	86 From Atebubu	120AAC	0.89	0.93	0.96	1.00	1.04	1.09	1.13	1.18	1.23	1.28	1.33	4.08%												
WENCHI	26F2Y	31	120AAC	2.33	2.45	2.57	2.70	2.83	2.97	3.12	3.28	3.44	3.61	3.79	4.99%												
WENCHI	WHF1B	12	50AAC	0.58	0.62	0.65	0.68	0.72	0.76	0.80	0.85	0.89	0.94	0.99	5.45%												
WENCHI	WHF2B	7.7	50AAC	0.48	0.50	0.52	0.55	0.57	0.60	0.63	0.66	0.69	0.72	0.76	4.75%												
WENCHI	WHF1Y	35	120AAC	0.85	0.89	0.94	0.99	1.05	1.10	1.16	1.23	1.29	1.36	1.43	5.37%												
WENCHI PRIMARY SIS	S/S Capacity			2.33	2.47	2.63	2.79	2.96	3.15	3.34	3.55	3.77	4.01	4.25	6.21%												
KINTAMPO	26F5Y	57	150AAC	1.03	1.08	1.13	1.18	1.24	1.30	1.36	1.43	1.50	1.57	1.64	4.78%												
TECHIMAN BSP	S/S Capacity			13.75	14.30	14.87	15.46	16.08	16.72	17.39	18.08	18.80	19.55	20.33	3.99%												
TAMALE																											
TAMALE	26F2B	248		2.48	2.62	2.76	2.91	3.07	3.24	3.41	3.60	3.79	4.00	4.22	5.44%												
TAMALE	26F3B	449		4.49	4.70	4.91	5.14	5.37	5.62	5.87	6.14	6.42	6.71	7.02	4.55%												
TAMALE	26F4B	263		2.63	2.75	2.88	3.02	3.16	3.31	3.46	3.62	3.79	3.97	4.16	4.70%												
TAMALE	26F6B	442	185ALXPLE(1km), 100AAC(22.7km)	4.42	4.68	4.95	5.24	5.55	5.87	6.21	6.57	6.96	7.36	7.79	5.83%												
TAMALE	26F7B	2.61		2.61	2.66	2.81	2.98	3.15	3.34	3.54	3.75	3.97	4.20	4.45	5.90%												
TAMALE	26F8B	2.61		2.61	2.73	2.85	2.98	3.11	3.24	3.39	3.54	3.69	3.85	4.02	4.41%												
TAMALE	26F9B	3.27		3.27	3.43	3.59	3.77	3.94	4.13	4.33	4.54	4.75	4.98	5.22	4.78%												
TAMALE	26F1Y	43	150AAC	4.51	4.74	4.98	5.23	5.50	5.78	6.07	6.38	6.70	7.04	7.39	5.05%												
PONG-TAMALE	26F2Y	1.26		1.26	1.32	1.39	1.45	1.52	1.59	1.66	1.74	1.82	1.91	2.00	4.69%												
BUJPE	26F5Y	0.93		0.93	0.98	1.02	1.07	1.12	1.17	1.23	1.29	1.35	1.41	1.48	4.70%												
Total(Tamale Substation)				29.13	30.94	32.85	34.89	37.05	39.34	41.78	44.36	47.11	50.03	53.12	6.19%												
TOTAL(NEED)				113.58	116.71	121.66	126.84	132.25	137.91	143.81	149.98	156.43	163.17	170.21													

**The Power Distribution System Master Plan Study for Ghana:
Socio-Economic Survey on Sample Communities
Households Questionnaire**

1.0.1
Questionnaire ID

1.0.2
Date:

1.0.3
Enumerator:

SECTION 1. HOUSEHOLD IDENTIFICATION

1.1 Community_____

1.2 District_____

1.3 Region_____

1.4 Electrification status:

[1] = Un-electrified (can be electrified by on-grid)

[2] = Electrified (On-grid)

1.5 Household Identification Number_____

1.6 Respondent Information

1.6.1 Respondent's Name:_____

Must be Household head or Spouse

1.6.1b Are you household head? [_____] [1]-Yes, [2]-No

1.6.2 Gender: [_____] [1]-Male, [2]-Female

1.6.3 Ethnicity [_____]

[1] Akan	[5] Mole-Dagbon
[2] Ga Dangme	[6] Gurma
[3] Ewe	[7]Others specify _____
[4] Guan	

1.7 Number of household members: [_____] Male___ Female___

1.8 Number of compound members: [_____] Male___ Female___

1.9 Occupation of the household head [_____]

Code: [1] = Government official/employee

[2] = Artisan self employed

[3] = Businessman/trader

[4] = Farmer

[5] =Fisherman

[6] = Labourer /unskilled worker

[7] =Others, specify _____

1.10 Housing Characteristics

1.10a Construction Material of the House [_____]

[1] =Mud house with thatch roof

[2] = Brick house with corrugated roofing sheets

[3] = Brick house with thatch roof

[4] = Wood

[5]= Mixture Mud & Brick house with thatch roof/roofing sheets

[6] = Mud house with mud roof

[7] = Others, specify_____

1.10b Single or multiple occupancy _____ [1]-Single, [2]-Multiple

1.10c Type of tenancy enjoyed [_____]

[1] = Owner-occupant

[4] = Family compound

[2] = Rented

[5] = Others, specify _____

[3] = Being occupied for free with consent of owner

1.11 Is any part of your house used for income generating activity or commercial purposes? [_____]

Code: [2] = NO, **go to SECTION 2**

[1] = YES, **go to 1.11a**

1.11a If part of the house is used for income generating activity, please indicate type. [_____]

Code: [1] = General goods/drug store

[7] = Tailor/ seamstress

[2] = Restaurant/chop bar

[8] = Hair salon or barber shop

[3] = Drinking bar/pito brewing

[9] = Repair shop

[4] = Bakery

[10] = Grain milling

[5] = Furniture making/Carpentry shop

[11] = Vegetable oil extraction

[6] = Handicraft making

[12] = Guest house

[13] = Others, specify _____

If the responding household is engaged in more than one type of business, enter the one that generates the most income for the household.

SECTION 2. ENERGY ISSUES

ENERGY USE PATTERN

For un-electrified household. (*Regarding Q2.1.1-3, don't explain the characteristics of the way of electrification to the respondent. After finishing whole questions, you can explain the characteristics)

2.1.1	Do you know about the procedure for getting electrification from the national grid? [1]-Yes, [2]-No	
2.1.2	Do you know about the procedures for getting electricity through the SHEP programme? [1]-Yes, [2]-No	
2.1.3	Do you know about the procedure for getting electricity through a Solar PV System? [1]-Yes, [2]-No	

2.1.4 Is your house wired? [1]-Yes, [2]-No

2.1.5 If not wired, how long will it take for your household to wire your house when the town is connected?
(months) _____

For both electrified and un-electrified household

2.2 What is the main source of energy for lighting? (Rank as 1, 2, 3, in order of importance)

2.2.1 Electricity from the National grid _____

2.2.2 Electricity from own generator _____

2.2.3 Kerosene lantern _____

2.2.4 Candles _____

2.2.5 Dry cell batteries _____

2.2.6 Solar Home System _____

2.2.7 Battery Charging system _____

2.2.8 Solar Lantern _____

2.2.9 Others, specify _____

2.3 What is the monthly cost of energy for lighting and electricity for electric appliances (Specify cedis or US\$)

	A: Initial cost	B Running cost
2.3.1 Electricity from the National grid	_____	_____
2.3.2 Electricity from own generator	_____	_____
2.3.3 Kerosene lantern	_____	_____
2.3.4 Candles	_____	_____
2.3.5 Dry cell batteries	_____	_____
2.3.6 Solar Home System	_____	_____
2.3.7 Battery Charging System	_____	_____
2.2.8 Solar Lantern	_____	_____
2.2.9 Others, specify_____	_____	_____

2.4.1 Do you own and use any of these electrical appliances in your home:

No	Item	Qty	Estimate Price (specify cedi or US\$)	Total Value (specify cedi or US\$)	Hours of use /day	Way of electrification: On-grid/ Solar PV/ Other Sources (generator, battery, etc) E
		A	B	C	D	
1	TV (colour) –small					
2	TV (colour)- big					
3	TV (black & white)					
4	VCR/VCD					
5	Radio					
6	Stereo (including Radio)					
7	Refrigerator-small					
7.1	New					
7.2	Secondhand					
8	Refrigerator-big					
8.1	New					
8.2	Secondhand					
9	Freezer-small					
9.1	New					
9.2	Secondhand					
10	Freezer-big					
10.1	New					
10.2	Secondhand					
11	Cell phone					
12	Lights (incandescent)					
13	Lights (fluorescent)					
14	Fan					
15	Flash light					
16	Sewing Machine					
17	Electric Iron					
18	Coil heater					
19	Table top single burner electric cooker					
20	4/ burner electric cooker					
21	Air Conditioner					
22	Other, specify_____					
23	Specify_____					

2.5. Apart from the electric appliances you mentioned above, which electric appliances do you want to own and use in the future? Pick up three electric appliances in high priority and describe how to finance.

No	Item	How to finance
1	TV (colour)-small	
2	TV (colour)-big	
3	TV (black & white)	
4	VCR/VCD	
5	Radio	
6	Stereo (including Radio)	
7	Refrigerator-small	
8	Refrigerator-big	
9	Freezer-small	
10	Freezer-big	
11	Cell phone	
12	Lights (incandescent)	
13	Lights (fluorescent)	
14	Fan	
15	Flash light	
16	Sewing Machine	
17	Electric Iron	
18	Coil heater	
19	Table top single burner electric cooker	
20	4/ burner electric cooker	
21	Air Conditioner	
22	Other, specify_____	
23	specify_____	

For electrified household

2.6 What year did you connect to on-grid system (e.g. Jan. 2000) ? _____

2.7 How would you rate the quality of service from the grid utility company? (Very good=1/ Good=2/ Fair=3/ Poor=4)

	Rating	Reason
2.7.1 Reliability	___	2.7.1 b _____
2.7.2 Cost	___	2.7.2 b _____
2.7.3 Response time to faults	___	2.7.3 b _____
2.7.4 Billing and collection	___	2.7.4 b _____
2.7.5 Other customer services , explain	___	_____

2.8 How would you rate the quality of service from the Solar PV fee-for-service provider?
(Very good=1/ Good=2/ Fair=3/ Poor=4)

- | | | |
|--|-------|---------------|
| 2.8.1 Reliability | _____ | 2.8.1b _____ |
| 2.8.2 Cost | _____ | 2.8.2b _____ |
| 2.8.3 Response time to faults | _____ | 2.8.3 b _____ |
| 2.8.4 Billing and collection | _____ | 2.8.4 b _____ |
| 2.8.5 Other customer services, explain | _____ | |

2.8.1 Has your electricity service ever been disconnected, Y___N___

2.8.2 If yes, Reason _____

2.8.3 Does your household have a meter for electricity? [1]-Yes, [2]-No

PREFERENCE AND WILLINGNESS TO PAY FOR ELECTRICITY

For un-electrified household

2.10	What time of the day do you think electricity is most needed? Code: [1] = Whole day (24 hours) [4] = From 6 p.m. until 10 p.m. [2] = Daytime only (from 6 a.m. to 6 p.m.) [5] = From 10 p.m. to 6 a.m. [3] = Nighttime only (from 6 p.m. to 6 a.m.) [6] = Others, specify _____	
2.11	What type of payment would you prefer? Code: [1] = Quarterly [4] = Others, specify _____ [2] = Monthly [3] = Bi-monthly	
2.12	According to what you have told me, your household currently spends about _____ cedis per month for lighting (add up all expenditure for lighting fuel from Q2.3) to provide energy to your household. If electricity were available in your area, how much are you willing to pay? Code: [1] = Same as current spending for fuels [2] = More than current spending for fuels, go to 2.13 [3] = Lower than current spending for fuels, go to 2.14	
2.13	You said you are willing to pay more than the current energy expenditure for lighting, please tell me exactly how much you are willing to pay per month?	
2.14	You said you are willing to pay less than the current energy expenditure for lighting, please tell me exactly how much you are willing to pay per month?	
2.15	What mechanism of payment do you think is most convenient? Code: [1] = Through banks [4] = Through pre-paid meters [2] = With a collector [5] = Others, specify _____ [3] = Pay to utility providing service	

SECTION 3. HOUSEHOLD CONDITION

INCOME & EMPLOYMENT

3.1 Income from Agricultural Activities

3.1.1 What is the total area of your farm in acres? _____

3.1.2 What is the main type of irrigation in your farm? _____

- | | |
|---------------------------|--------------------------------|
| [1] = Rainfed | [4] = Tubed/piped well |
| [2] = Open well | [5] = Gravity water/Irrigation |
| [3] = Stream, river, lake | [6] = Others, specify _____ |

3.1.3 Income by Type of Crops Planted for the Past Twelve Months

	Type of crop/ livestock	Harvest in bags (maxi) other unit	Estimated value	Own consumption	Amount sold
1	Cocoa				
2	Cassava				
3	Grain				
4	Cocoyam				
5	Onion				
6	Cotton				
7	Vegetable				
8	Groundnut other legumes				
9	Fruit trees				
10	Sheep and goats				
11	Yam				
12	Cows				
13	Fishing				
14	Others, specify _____				

3.2. Income from Employment

- 3.2.1 Type of employment: Permanent___ Casual/seasonal___
- 3.2.2 Monthly gross wages _____
- 3.2.3 Earnings in-kind _____
- 3.2.4 Other Income (specify and estimate annual) _____

HOUSEHOLD'S DESIRE FOR SERVICES

3.3 Which of the following services would you like to have first, second, third, etc.?
(Rank the services listed from 1, 2, etc.)

1	House ownership	
2	Good educational services and facilities	
3	Public transportation	
4	System for getting clean water	
5	Irrigation	
6	Roads, bridges, and other infrastructure	
7	Good electricity	
8	Good health services and facilities	
9	Latrines	
10	Job opportunities	
11	Others, specify _____	

Why? (especially, the reason for the top 3)

The Power Distribution System Master Plan Study for Ghana

Socio-Economic Survey of Sample Communities: Commercial, Public and Social Facilities Questionnaire

1.0.1 Questionnaire ID _____

1.0.2 Date _____ 1.0.3 Enumerator _____

SECTION1: COMMUNITY INFORMATION

1.1 Community _____

1.2 District _____

1.3 Region _____

1.4 Electrification status:

[1] = Un-electrified (can be electrified by on-grid)

[2] = Electrified (On-grid)

SECTION2: GENERAL INFORMATION ABOUT RESPONDENT

2.1	Name of respondent	
2.1a	Sex	
2.1b	Job position	
2.2	Type of Enterprise;	
2.2.1	General goods/drug store	
2.2.2	Restaurant/chop bar	
2.2.3	Drinking bar/pito brewing	
2.2.4	Bakery	
2.2.5	Furniture making/ carpentry shop	
2.2.6	Handicraft making	
2.2.7	Tailor/seamstress	
2.2.8	Hair salon or barber shop	
2.2.9	Repair ship	
2.2.10	Grain milling	
2.2.11	Vegetable oil extraction	
2.2.12	Guest house	
2.2.13	Battery charging station	
2.2.14	Communication Center	
2.2.15	Cold Store	
2.2.16	Private Clinic	
2.2.17	Others	
2.3	Type of Public or Social facility;	
2.3.1	Pre/Primary School	
2.3.2	Junior Secondary School	
2.3.3	Senior Secondary School	
2.3.4	Vocational School	
2.3.5	Adult Literacy center	
2.3.6	CHPS compound	
2.3.7	Clinic	

2.3.8	Health center/ health post	
2.3.9	Mechanized water supply system	
2.3.10	Community center	
2.3.11	Governmental office	
2.3.12	Mosque/Church	
2.3.13	Public market	
2.3.14	Vehicle/bus station	
2.3.15	Street lighting	
2.3.16	Others	

2.5 Daily sales (Cedi) and profit if applicable.
sales _____ profit _____

2.6 Daily attendance/visits of facility (where applicable) _____

2.7 When was this facility established (Year) _____

SECTION3: ENERGY/ELECTRICITY SERVICES

For both electrified and un-electrified facility

3.1 What is the main source of energy for lighting? (Rank as 1, 2, 3, in order of importance)

- 3.1.1 Electricity from the National grid _____
- 3.1.2 Electricity from own generator _____
- 3.1.3 Kerosene lantern _____
- 3.1.4 Candles _____
- 3.1.5 Dry cell batteries _____
- 3.1.6 Solar Home System _____
- 3.1.7 Battery Charging system _____
- 3.1.8 Solar Lantern _____
- 3.1.9 Others, specify _____

3.2 What is the monthly cost of energy for lightning and electricity for electric appliances? (Specify in cedis)

- | | A: Initial cost | B Running cost |
|--|-----------------|----------------|
| 3.2.1 Electricity from the National grid | _____ | _____ |
| 3.2.2 Electricity from own generator | _____ | _____ |
| 3.2.3 Kerosene lantern | _____ | _____ |
| 3.2.4 Candles | _____ | _____ |
| 3.2.5 Dry cell batteries | _____ | _____ |
| 3.2.6 Solar Home System | _____ | _____ |
| 3.2.7 Battery Charging system | _____ | _____ |
| 3.2.8 Solar Lantern | _____ | _____ |
| 3.2.9 Others, specify | _____ | _____ |

3.3 Which electrical appliances do you use in this facility?

	Electric Appliance	Qty		Hours of use /day	Method of electrification: On-grid/ Solar PV/ Other Sources, (generator, battery, etc)
		A	B		
3.3.1	TV (colour)-small				
3.3.2	TV (colour)-big				
3.3.3	TV (black & white)				
3.3.4	VCR/VCD				
3.3.5	Radio				
3.3.6	Stereo (including Radio)				
3.3.7	Refrigerator-small				
3.3.8	Refrigerator-big				
3.3.9	Freezer-small				
3.3.10	Freezer-big				
3.3.11	Lights (incandescent)				
3.3.12	Lights (fluorescent)				
3.3.13	Fan				
3.3.14	Sewing Machine				
3.3.15	Electric Iron				
3.3.16	Air Conditioner				
3.3.17	Electric motor				
3.3.18	Computer/Printer				
3.3.19	Telephone/Fax machine				
3.3.20	Power tools				
3.3.21	Irrigation				
3.3.22	Hair dryers				
3.3.23	Water pump				
3.3.24	Microphone/Speakers				
3.3.25	Others				

3.4 In what ways has electricity (*no matter on-grid, Solar PV or generator) improved the operation of your enterprise/facility/services?

	Impact Areas	Vast Improvement	A little improvement	No improvement
3.4.1	Lower cost of production			
3.4.2	Higher sales/Higher profitability			
3.4.3	Higher production output			
3.4.4	Less effort and drudgery			
3.4.5	Better quality products and services			
3.4.6	Academic performance			
3.4.7	Teaching and learning environment			
3.4.8	Higher attendance/use of facility			

4.1 Is this premises connected to the national grid? ____ Y/N
If No, **go to Q 4.7**

4.2 When was this premises connected to the electricity system? (Year)_____

4.3 How would you rate the quality of service from the grid utility company?
(Very good=1/Good=2/ Fair=3/ Poor=4)

		Rating	Reason
4.3.1	Reliability		
4.3.2	Cost		
4.3.3	Response time to faults		
4.3.4	Billing and collection		
4.3.5	Other customer services		

4.4 Have you received information on how to use electricity productively and efficiently from the electricity company or anyone else? Yes_____ No_____

4.5.1 Does the cost and reliability of grid electricity service have a serious effect on the profitability of your business? Yes_____ No_____

4.5.2 If yes, explain

4.6.1 What is your monthly cost of grid electricity? Estimate based on last bill _____

4.6.2 Who pays the grid electricity bill at the end of the month?

[1] Husband _____

[2] Wife _____

[3] Other, specify_____

4.6.3 Has your electricity supply ever been disconnected for late payment? Y/N _____

4.7 If not connected to the electricity grid, what is the reason for not connecting?

4.7.1 High connection cost _____

4.7.2 High monthly tariff _____

4.7.3 High cost of wiring house _____

4.7.4 No electricity network in the area _____

4.7.5 Have a solar PV system _____

4.7.6 Other reason, specify_____

5.1 Are you receiving electricity from a solar PV system? _____ Y/N
If No, **go to Q 6.1**

5.2 What type of Solar PV System?

5.2.1 Battery Charging System _____

5.2.2 Solar Home System (less than 50Watts) _____

5.2.3 Solar Home System (50Watt-100 Watts) _____

5.2.4 Solar Home System (>100 Watts) _____

5.2.5 Water pumping system _____

5.2.6 Vaccine refrigeration system _____

5.2.7 Radio communication system _____

5.2.8 Street Lighting system _____

5.3 How did you acquire the Solar PV System? _____

- Code: [1] = Loan
 [2] = Cash payment
 [3] = Rented
 [4] = Through MOE project
 [5] = Other donor project
 [6] = Others, specify _____

5.4 What maintenance arrangement is in place for your PV system?

- Code: [1] = None
 [2] = Self maintenance
 [3] = Local Technician
 [4] = Solar Technician

For un-electrified facility.(*commercial facility only. If public or social facility, **go to 7.1**)

6.1	What time of the day do you think electricity is most needed? Code: [1] = Whole day (24 hours) [4] = From 6 p.m. until 10 p.m. [2] = Daytime only (from 6 a.m. to 6 p.m.) [5] = From 10 p.m. to 6 a.m. [3] = Nighttime only (from 6 p.m. to 6 a.m.) [6] = Others, specify _____	
6.2	What type of payment would you prefer? Code: [1] = Quarterly [4] = Others, specify _____ [2] = Monthly [3] = Bi-monthly	
6.3	According to what you have told me, your facility currently spends about _____ cedis per month for lighting (add up all expenditure for lighting fuel from Q3.2) to provide energy to your household. If electricity were available in your area, how much are you willing to pay? Code: [1] = Same as current spending for fuels [2] = More than current spending fuels, go to 6.4 [3] = Lower than current spending for fuels, go to 6.5	
6.4	You said you are willing to pay more than the current energy expenditure for lighting, please tell me exactly how much you are willing to pay per month?	
6.5	You said you are willing to pay less than the current energy expenditure for lighting, please tell me exactly how much you are willing to pay per month?	
6.6	What mechanism of payment do you think is the most convenient? Code: [1] = Through banks [4] = Through pre-paid meters [2] = With a collector [5] = Others, specify _____ [3] = Pay to utility providing service	

For both electrified and un-electrified facility

7.1 Are there any expectations of electrification that are not being met presently, Explain

7.2 What improvements do you expect from the electricity service to enhance your business further?

SECTION 4: OTHER ISSUES/CONCERNS

8.1 What type of employment is being created by this enterprise/ public or social service?

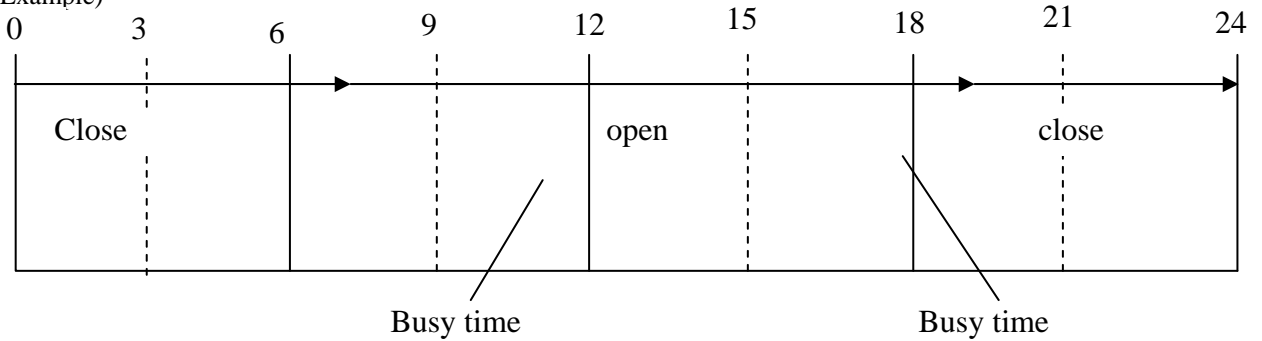
- a) 1-2 fulltime,
- b) >2 fulltime,
- c) 1-2 part time,
- d) >2 part time
- e) Other

8.2 What are the constraints to further expansion of your business?

	Constraints to business expansion	Rank (top 3 constraints only)
5.2.1	Lack of capital/credit	
5.2.2	Inadequate market size	
5.2.3	Inadequate electricity supply	
5.2.4	Other (please specify)	

Daily Operation Pattern

(Example)



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The Power Distribution System Master Plan Study for Ghana: Socio-Economic Survey on Sample Communities

COMMUNITY PROFILES

1.0.1 Questionnaire ID _____

1.0.2 Date _____ 1.0.3 Enumerator _____

1.1 Community _____

1.2 District _____

1.3 Region _____

1.4 Electrification status:

[1] = Un-electrified (can be electrified by on-grid)

[2] = Electrified (On-grid)

1.5 Population _____ Male _____ Female _____

1.6 Approximate number of compounds _____

1.7 Distance from the nearest transmission/distribution line _____ km

Commercial, Public and Social Facilities

1.8	Type of Enterprise;	Approx. No.	Is this facility Functioning (F)/ Not functioning (NF)	Electrified grid	Electrified PV	Electrified Gen. Set	Not energized
1.8.1	General goods/drug store						
1.8.2	Restaurant/chop bar						
1.8.3	Drinking bar/pito brewing						
1.8.4	Bakery						
1.8.5	Furniture making/ carpentry shop						
1.8.6	Handicraft making						
1.8.7	Tailor/seamstress						
1.8.8	Hair salon or barber shop						
1.8.9	Repair ship						
1.8.10	Grain milling						
1.8.11	Vegetable oil extraction						
1.8.12	Guest house						
1.8.13	Battery charging station						
1.8.14	Communication Center						
1.8.15	Cold Store						
1.8.16	Private Clinic						
1.8.17	Others , _____						
1.9	Type of Public or Social facility;	Approx. No.	Is this facility Functioning (F)/ Not functioning (NF)	Electrified grid	Electrified PV	Electrified Gen. Set	Not energized
1.9.1	Pre/Primary School						
1.9.2	Junior Secondary School						
1.9.3	Senior Secondary School						

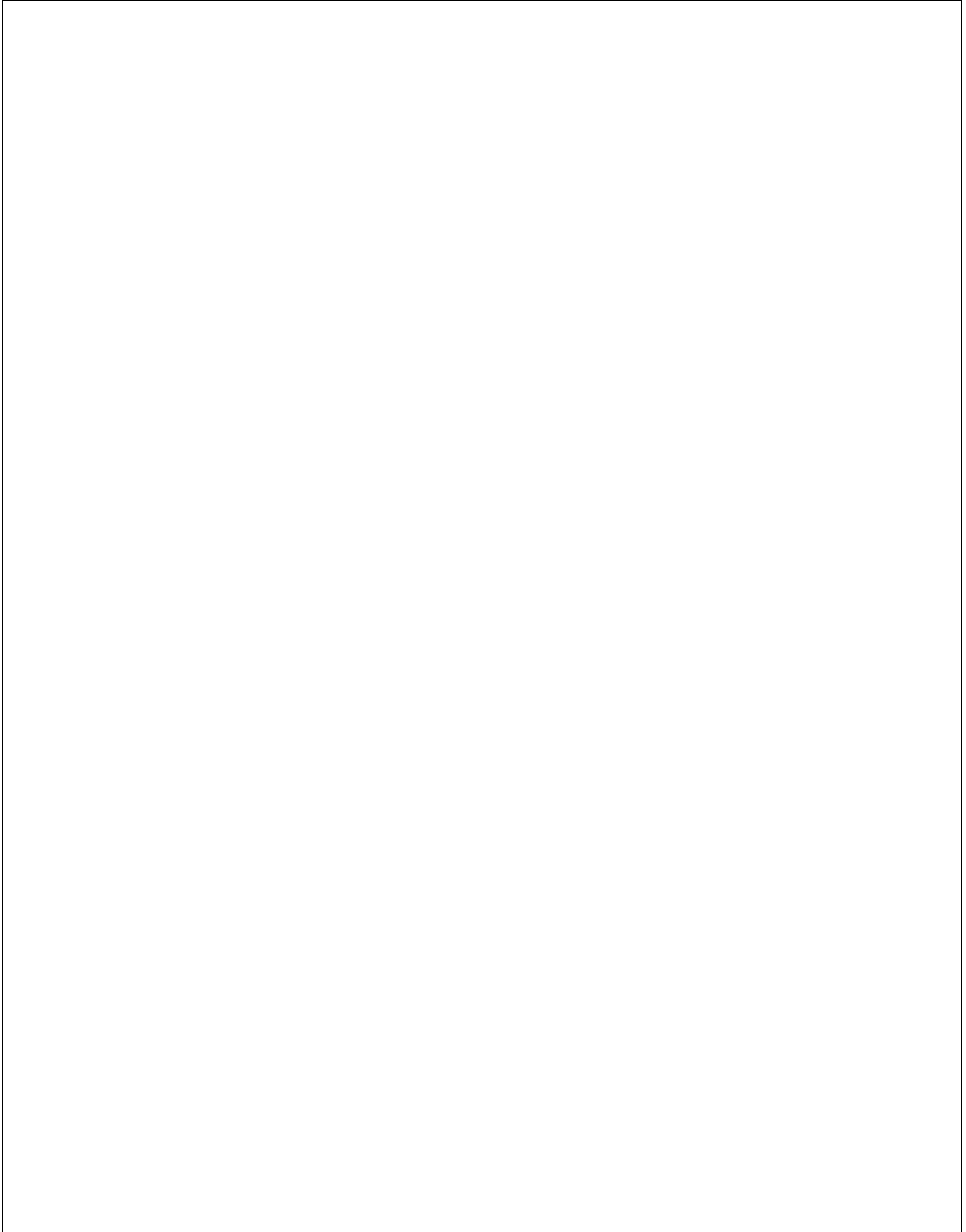
1.9.4	Vocational School						
1.9.5	Adult Literacy center						
1.9.6	CHPS compound						
1.9.7	Clinic						
1.9.8	Health center/ health post						
1.9.9	Mechanized water supply system						
1.9.10	Community center						
1.9.11	Governmental office						
1.9.12	Mosque/church						
1.9.13	Public market						
1.9.14	Vehicle/bus station						
1.9.15	Street lighting						
1.9.16	Others, _____						

1.10.1	Is there an electrician in this community?	[1] Yes 1.10.2. If yes, how many? _____ [2] No
1.11.1	Is there an electrical goods store in this community?	[1] Yes 1.11.2. If yes, how many? _____ [2] No

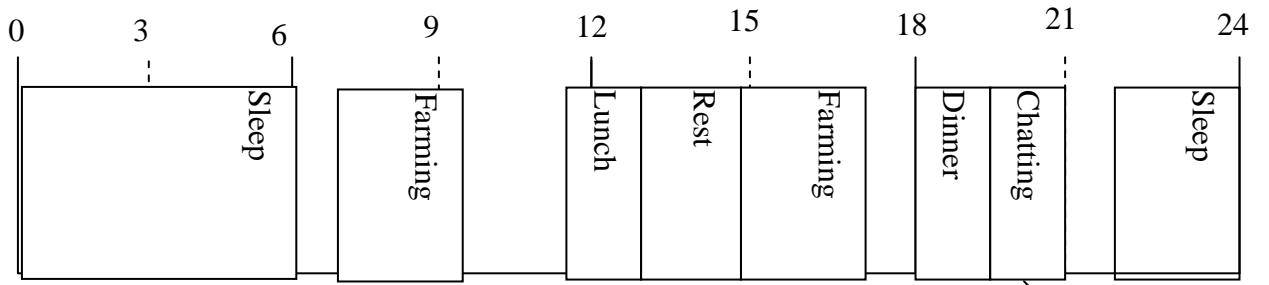
2.0	A chief in the community?	
2.1	Village Organizations, community-based associations and self-help groups in the community	
2.2	Recently completed projects or ongoing project in the community	
2.3	Level of interest of community members in development activities	

2.4 Make general assessment of the ability/interest of the community to connect to electricity and to be able to use electricity

3.1 Settlement pattern (*draw rough sketch map below indicating where Houses (Compounds) concentrate or Commercial and Public/Social facilities are located as point of reference):

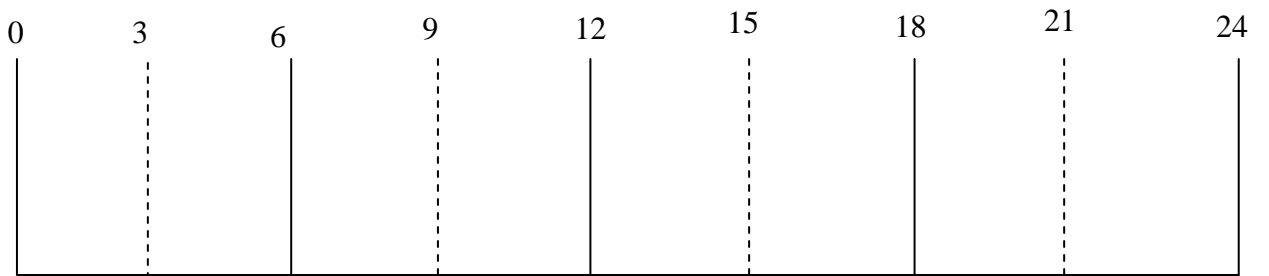


3.2 Daily Activity Map for 1) male adult, 2) female adult, 3) young male, 4) child
 (Example)

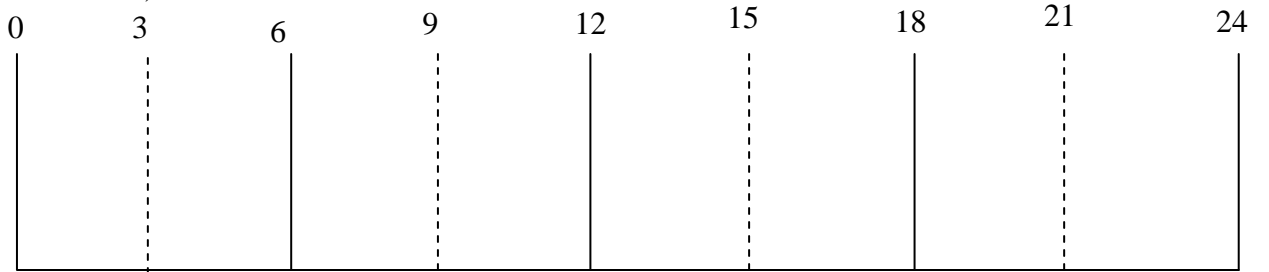


At open space of compound

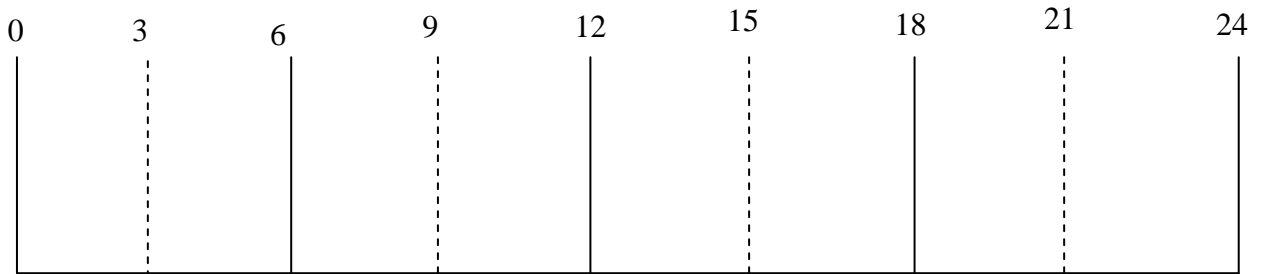
(Male adult)



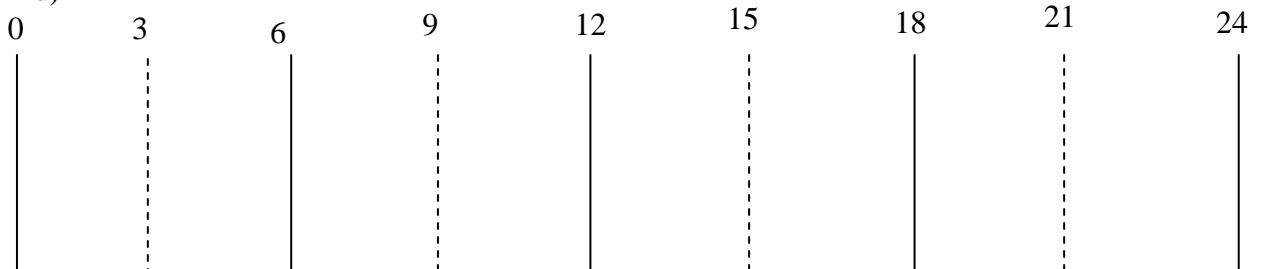
(Female adult)



(Young male)



(Child)



Sample Communities of the Socio-Economic Survey

No.	Community	Region	District	Electrification Status	Population
1	Afrefreso	Brong Ahafo	Atebubu Amantin	Electrified	797
2	Akoka	Brong Ahafo	Atebubu Amantin	Electrified	1161
3	Balga Nkwanta	Brong Ahafo	Atebubu Amantin	Un-electrified	450
4	Dobidi Nkwanta	Brong Ahafo	Atebubu Amantin	Un-electrified	499
5	Jato Zango	Brong Ahafo	Atebubu Amantin	Electrified	1728
6	Kokrompe	Brong Ahafo	Atebubu Amantin	Electrified	2324
7	Praprabon	Brong Ahafo	Atebubu Amantin	Un-electrified	678
8	Adaa	Brong Ahafo	Tano South	Un-electrified	1500
9	Derma	Brong Ahafo	Tano South	Electrified	9200
10	Mansin	Brong Ahafo	Tano South	Electrified	2400
11	Mawaninso (Otweekrom)	Brong Ahafo	Tano South	Un-electrified	400
12	Tuagyankrom	Brong Ahafo	Tano South	Un-electrified	624
13	Achiaman	Greater Accra	Ga West	Un-electrified	610
14	Afiaman	Greater Accra	Ga West	Electrified	3210
15	Amasaman	Greater Accra	Ga West	Electrified	4230
16	Asofan	Greater Accra	Ga West	Electrified	2340
17	Kojo Ashong	Greater Accra	Ga West	Un-electrified	812
18	Mayera	Greater Accra	Ga West	Un-electrified	860
19	Medie	Greater Accra	Ga West	Electrified	3626
20	Nii Boye town	Greater Accra	Ga West	Electrified	10100
21	Obom	Greater Accra	Ga West	Un-electrified	1382
22	Pokuase	Greater Accra	Ga West	Electrified	11200
23	Afiencya	Greater Accra	Dangme West	Electrified	3315
24	Dawhenya	Greater Accra	Dangme West	Electrified	3098
25	Dedenya	Greater Accra	Dangme West	Un-electrified	644
26	Kordiabe	Greater Accra	Dangme West	Electrified	1669
27	Kponyunor	Greater Accra	Dangme West	Electrified	761
28	Lerkpogunor	Greater Accra	Dangme West	Electrified	2794
29	Maamong Shai	Greater Accra	Dangme West	Un-electrified	400
30	Minya	Greater Accra	Dangme West	Un-electrified	318
31	Ningo	Greater Accra	Dangme West	Electrified	8952
32	Otsdoleku	Greater Accra	Dangme West	Un-electrified	621
33	Alavanyo	Eastern	Afram Plains	Un-electrified	113
34	Amankwa Tornu	Eastern	Afram Plains	Electrified	426
35	Foso	Eastern	Afram Plains	Un-electrified	865
36	Kwaekese	Eastern	Afram Plains	Un-electrified	1941
37	New Kyeiase	Eastern	Afram Plains	Electrified	400
38	Samanhyia	Eastern	Afram Plains	Electrified	936
39	Tease	Eastern	Afram Plains	Electrified	6481
40	Adukrom	Eastern	Akuapim North	Electrified	6404
41	Apiride	Eastern	Akuapim North	Electrified	2261
42	Asenama	Eastern	Akuapim North	Electrified	1073
43	Larteh Akwapim	Eastern	Akuapim North	Electrified	8310
44	Saforo	Eastern	Akuapim North	Un-electrified	422
45	Sanfo-Ano	Eastern	Akuapim North	Un-electrified	626
46	Sarfo-Dawai	Eastern	Akuapim North	Un-electrified	424
47	Adzato	Volta	Keta	Un-electrified	355
48	Afiademyigba (Anlo)	Volta	Keta	Electrified	7108

49	Anloga	Volta	Keta	Electrified	20886
50	Atorkor	Volta	Keta	Electrified	1576
51	Kedzi	Volta	Keta	Un-electrified	1405
52	Ayirefia Baffor	Volta	Krachi	Electrified	800
53	Ayirem	Volta	Krachi	Un-electrified	434
54	Dambai	Volta	Krachi	Electrified	17000
55	Kotokugyane 2	Volta	Krachi	Un-electrified	400
56	Kparekpare	Volta	Krachi	Electrified	2500
57	Ebiram	Central	Mfantsiman	Electrified	796
58	Edumafa	Central	Mfantsiman	Electrified	1099
59	Hinii	Central	Mfantsiman	Un-electrified	1080
60	Narkwa	Central	Mfantsiman	Electrified	6915
61	Enyan Apaa	Central	Ajumako	Un-electrified	2100
62	Enyan Edwansa Okokodo	Central	Ajumako	Un-electrified	500
63	Enyan Main	Central	Ajumako	Electrified	3605
64	Enyan Obontser	Central	Ajumako	Un-electrified	835
65	Enyan Onyaadze	Central	Ajumako	Un-electrified	500
66	Nkwatanum-Esiam	Central	Ajumako	Electrified	10286
67	Abrodzewuram	Western	Mpohor Wass East	Un-electrified	1100
68	Daboase	Western	Mpohor Wass East	Electrified	6900
69	Sekyere Hemang	Western	Mpohor Wass East	Un-electrified	1195
70	Sekyere Krobo	Western	Mpohor Wass East	Electrified	2400
71	Boekrom	Western	Ahanta West	Un-electrified	602
72	Bonsukrom	Western	Ahanta West	Electrified	890
73	Busua	Western	Ahanta West	Electrified	1900
74	Dixcove	Western	Ahanta West	Electrified	5200
75	Elonbankata	Western	Ahanta West	Un-electrified	1020
76	Mpaniasa	Western	Ahanta West	Electrified	1300
77	Ntaakrom	Western	Ahanta West	Un-electrified	875
78	Sankor	Western	Ahanta West	Un-electrified	724
79	Aboasu	Ashanti	Offinso	Electrified	2756
80	Afrancho	Ashanti	Offinso	Electrified	7727
81	Akomadan	Ashanti	Offinso	Electrified	16562
82	Amoawi	Ashanti	Offinso	Electrified	2518
83	Ampabame	Ashanti	Offinso	Electrified	1345
84	Bonsua Kawkaw	Ashanti	Offinso	Un-electrified	800
85	Mankramso	Ashanti	Offinso	Un-electrified	585
86	Nkenkaasu	Ashanti	Offinso	Electrified	10014
87	Sraneso I	Ashanti	Offinso	Un-electrified	325
88	Sraneso II	Ashanti	Offinso	Un-electrified	347
89	Wenkyi	Ashanti	Offinso	Un-electrified	218
90	Aboaso	Ashanti	Kwabre	Electrified	7493
91	Abrade	Ashanti	Kwabre	Un-electrified	563
92	Afrantwo	Ashanti	Kwabre	Electrified	4418
93	Bomso	Ashanti	Kwabre	Un-electrified	457
94	Mamponteng	Ashanti	Kwabre	Electrified	9121
95	Meduma	Ashanti	Kwabre	Electrified	3558
96	Mpobi	Ashanti	Kwabre	Electrified	1307
97	Nantan	Ashanti	Kwabre	Un-electrified	230
98	Nkukuabuoho	Ashanti	Kwabre	Electrified	3172
99	Sasa	Ashanti	Kwabre	Un-electrified	913
100	Sayiamo	Ashanti	Kwabre	Un-electrified	171

Population, and Number of Households and Commercial and Public Facilities

Community	Population	App. No. of Compounds	Commercial facilities	Grain Milling	Junior secondary school	CHPS compound	Clinic	Health center/post	Government office
Aboaso	7493	457	122	6	4	0	1	0	0
Aboasu	2756	154	42	1	0	0	0	0	0
Abrade	563	43	15	0	0	0	0	0	0
Abrodzewuram	1100	163	33	3	1	0	0	0	0
Achiaman	610	98	43	2	1	0	0	0	0
Adaa	1500	150	42	5	0	0	0	0	0
Adukrom	6404	775	186	5	4	0	1	0	3
Adzato	355	75	9	2	0	0	0	0	0
Afiademyigba (Anlo)	7108	1210	234	12	5	0	1	0	3
Afiaman	3210	486	76	3	1	0	0	0	0
Afienea	3315	430	106	8	2	0	1	0	2
Afrancho	7727	551	415	0	3	0	0	0	2
Afrantwo	4418	262	275	4	10	1	0	0	0
Afrefreso	797	155	20	0	0	0	0	0	0
Akoka	1161	144	32	2	1	0	0	1	0
Akomadan	16562	2124	666	20	9	0	1	0	8
Alavanyo	113	50	3	0	0	0	0	0	0
Amankwa Tornu	426	300	15	2	1	0	0	0	0
Amasaman	4230	725	191	8	2	0	1	0	20
Amoawi	2518	196	33	2	1	0	0	0	1
Ampabame	1345	84	31	0	0	0	0	0	0
Anloga	20886	3655	295	28	10	0	1	0	6
Apiride	2261	283	79	2	2	0	0	0	2
Asenama	1073	191	55	5	1	1	0	0	1
Asofan	2340	260	141	0	2	0	0	0	5
Atorkor	1576	288	26	2	1	0	0	0	0
Ayirefia Baffor	800	300	17	4	1	0	0	0	0
Ayirem	434	53	27	2	0	0	0	0	0
Balga Nkwanta	450	49	30	2	0	0	0	0	0
Boekrom	602	168	26	3	0	0	0	0	0
Bomso	457	41	10	0	0	0	0	0	0
Bonsua Kawkaw	800	91	20	2	1	0	0	1	1
Bonsukrom	890	132	11	1	0	0	0	0	0
Busua	1900	387	47	1	1	0	0	0	0
Daboase	6900	765	75	4	5	0	2	0	4
Dambai	17000	5000	518	20	6	0	1	0	0
Dawhenya	3098	264	79	3	2	1	0	0	1
Dedenya	644	79	14	5	0	0	0	0	0
Derma	9200	620	82	4	3	1	0	0	1
Dixcove	5200	650	72	2	2	0	1	0	0
Dobidi Nkwanta	499	61	11	2	0	0	0	0	0
Ebiram	796	198	23	4	1	0	0	0	0
Edumafa	1099	172	6	3	1	1	0	0	0
Elonbankata	1020	164	18	2	0	0	0	0	0
Enyan Apaa	2100	226	22	0	1	0	0	0	0
Enyan Edwansa Okokodo	500	98	4	2	0	0	0	0	0
Enyan Main	3605	437	93	4	2	1	0	0	0
Enyan Obaiser	835	129	26	1	1	1	0	0	0
Enyan Onyaadze	500	77	9	0	0	0	0	0	0
Foso	865	175	25	2	1	0	0	0	0
Hinii	1080	185	5	0	0	0	0	0	0
Jato Zango	1728	245	54	3	1	0	0	1	0
Kedzi	1405	287	61	0	3	0	0	0	0
Kojo Ashong	812	158	34	2	1	0	0	0	0
Kokrompe	2324	260	64	3	1	0	0	0	0
Kordiabe	1669	284	32	6	1	0	0	0	0
Kotokugyane 2	400	30	15	0	0	0	0	0	0
Kparekpare	1237	225	34	8	1	0	0	0	0
Kponyunor	761	201	14	2	0	0	0	0	0
Kwaekese	1941	266	20	3	1	0	0	0	0

Larteh Akwapim	8310	1291	107	7	5	0	0	0	1
Lerkpogunor	2794	457	53	8	2	0	1	0	0
Maamong Shai	400	60	5	0	0	0	0	0	0
Mamponteng	9121	529	61	3	5	0	1	0	0
Mankramso	585	74	37	5	0	0	0	0	0
Mansin	2400	215	39	0	1	0	0	0	0
Mawaninso (Otweekrom)	400	45	19	1	0	1	0	0	0
Mayera	860	184	31	1	1	0	0	0	2
Medie	3626	476	110	6	3	0	0	1	0
Meduma	3558	360	116	2	2	0	0	0	0
Minya	318	38	2	0	0	0	0	0	0
Mpaniasa	1300	224	20	2	0	0	0	0	0
Mpobi	1307	132	58	1	1	0	0	1	0
Nantan	230	23	5	0	0	0	0	0	0
Narkwa	6915	653	29	5	1	0	1	0	0
New Kyeiase	400	200	15	3	1	0	0	0	0
Nii Boye town	10100	1205	256	5	5	0	0	0	8
Ningo	8952	789	127	5	4	0	1	0	1
Nkenkaasu	10014	932	281	5	5	0	1	0	2
Nkukuabuoho	3172	181	118	0	1	0	0	0	0
Nkwatanum-Esiam	10286	1200	136	6	5	0	0	1	2
Ntaakrom	875	149	23	2	1	0	0	0	0
Obom	1382	192	44	0	2	0	0	1	6
Otsdoleku	621	110	2	1	0	0	0	0	0
Pokuase	11200	1410	246	10	3	0	0	0	6
Praprabon	678	65	17	4	1	0	0	0	0
Saforo	422	87	49	2	0	0	0	0	0
Samanhyia	936	329	40	3	1	0	1	0	0
Sanfo-Ano	626	115	55	1	1	0	0	0	0
Sankor	724	159	27	4	0	0	0	0	0
Sarfo-Dawai	424	88	8	4	1	0	0	0	0
Sasa	913	40	26	0	0	0	0	0	0
Sayiamo	171	8	9	0	0	0	0	0	0
Sekyere Hemang	1195	178	66	3	1	0	0	0	1
Sekyere Krobo	2400	306	49	3	0	1	0	0	0
Sraneso I	325	52	35	1	0	0	0	0	0
Sraneso II	347	54	21	1	0	0	0	0	0
Tease	6481	748	92	5	3	0	1	0	0
Tuagyankrom	624	89	17	5	0	0	0	0	0
Wenkyi	218	22	15	1	0	0	0	0	0

NAME	DISTRICT	RegionName	LONG	LAT	Pop	Total kW	Company
Amponya	Adansi West	Ashanti	-1.62	6.39	696	21.57	ECG
Ahwiaa Sensanso	Afigya Sekyere	Ashanti	-1.57	6.75	603	20.20	ECG
Nwamase	Afigya Sekyere	Ashanti	-1.54	6.76	636	20.76	ECG
Adeesena	Afigya Sekyere	Ashanti	-1.51	6.76	894	24.71	ECG
Koniyaw	Amansie East	Ashanti	-1.45	6.40	1,542	45.85	ECG
Fereso No.2	Amansie East	Ashanti	-1.36	6.31	1,705	48.75	ECG
Fereso	Amansie East	Ashanti	-1.38	6.32	1,657	47.60	ECG
Hu	Amansie East	Ashanti	-1.87	6.21	772	22.77	ECG
Apitiso No.2	Amansie East	Ashanti	-1.72	6.17	1,390	32.52	ECG
Abanyasu Mile 14	Amansie East	Ashanti	-1.81	6.21	1,526	45.59	ECG
Fiankowa	Amansie East	Ashanti	-1.72	6.31	1,699	48.66	ECG
Achinakrom	Bosomtwe Kwanwom	Ashanti	-1.47	6.65	0	0.00	ECG
Nkuran	Bosomtwe Kwanwom	Ashanti	-1.67	6.65	835	23.76	ECG
Sape	Bosomtwe Kwanwom	Ashanti	-1.46	6.64	910	24.88	ECG
Twenuase	Bosomtwe Kwanwom	Ashanti	-1.62	6.54	1,265	30.59	ECG
Abanasi	Ejisu Juaben	Ashanti	-1.42	6.68	1,443	33.46	ECG
Kapro	Kumasi Metropoli	Ashanti	-1.74	6.79	0	0.00	ECG
Asakraka	Kumasi Metropoli	Ashanti	-1.82	6.75	0	0.00	ECG
Abroma	Kwabre	Ashanti	-1.60	6.97	767	22.77	ECG
Soku	Kwabre	Ashanti	-1.62	6.97	897	24.79	ECG
Amoako	Kwabre	Ashanti	-1.61	6.94	1,335	31.70	ECG
Duasidan	Dormaa	Brong Ahafo	-2.92	7.22	846	14.95	NED
Agyeman Kurom	Dormaa	Brong Ahafo	-2.97	7.34	592	8.40	NED
Ntronan	Dormaa	Brong Ahafo	-2.75	7.13	2,332	58.45	ECG
Tweapease	Dormaa	Brong Ahafo	-2.93	7.27	0	0.00	ECG
Atuna	Drobo	Brong Ahafo	-2.82	7.50	2,167	37.51	NED
Gyengyemeregya	Jaman	Brong Ahafo	-2.72	7.64	1,090	16.07	NED
Kookuma	Nkoranza	Brong Ahafo	-1.77	7.82	1,250	22.23	NED
Kuntunso	Techiman	Brong Ahafo	-1.94	7.53	937	15.35	NED
Wurompo	Wenchi	Brong Ahafo	-2.07	7.78	718	14.40	NED
Akete	Wenchi	Brong Ahafo	-2.07	7.80	758	14.56	NED
Gyansoso	Wenchi	Brong Ahafo	-2.11	7.77	1,121	16.24	NED
Agyena Ti	Wenchi	Brong Ahafo	-1.90	7.81	1,513	23.72	NED
Rubber Lane Asedu	Abura Asebu Kwam	Central	-1.20	5.21	2,727	75.47	ECG
Kwaman	Agona	Central	-0.83	5.58	533	19.08	ECG
Kwansakrom	Agona	Central	-0.68	5.54	686	21.49	ECG
Amanful	Agona	Central	-0.72	5.59	859	24.15	ECG
Kwaaman	Agona	Central	-0.83	5.57	869	24.32	ECG
Abeadze	Ajumako Enyan Es	Central	-0.87	5.42	634	20.67	ECG
Afranse	Ajumako Enyan Es	Central	-0.75	5.52	2,573	73.07	ECG
Kwanyako	Ajumako Enyan Es	Central	-0.87	5.44	1,108	28.22	ECG
Esaaman	Ajumako Enyan Es	Central	-0.90	5.43	968	25.91	ECG
Osai Krodua	Awutu Effutu Sen	Central	-0.52	5.64	638	20.76	ECG
Topiase No.1 & 2	Awutu Effutu Sen	Central	-0.52	5.72	643	20.84	ECG
Ahenkromu	Awutu Effutu Sen	Central	-0.52	5.55	650	20.93	ECG
Kow Pobi Ayereso	Awutu Effutu Sen	Central	-0.52	5.61	777	22.86	ECG
Ofajator	Awutu Effutu Sen	Central	-0.52	5.66	784	22.95	ECG
Asaminaba	Awutu Effutu Sen	Central	-0.59	5.35	846	23.97	ECG
Bewuanum	Awutu Effutu Sen	Central	-0.56	5.64	892	24.71	ECG
Ofaada	Awutu Effutu Sen	Central	-0.54	5.72	937	25.35	ECG
Fianko	Awutu Effutu Sen	Central	-0.52	5.72	958	25.61	ECG
Ankaful	Cape Coast	Central	-1.30	5.14	569	19.64	ECG
Gomoa Dunkwa	Gomoa	Central	-0.82	5.41	865	24.23	ECG
Abrekum	Gomoa	Central	-0.71	5.30	739	22.30	ECG
Buduata	Gomoa	Central	-0.58	5.49	654	20.93	ECG
Fomena	Gomoa	Central	-0.80	5.50	716	21.96	ECG
Apeakwa Dabiso	Gomoa	Central	-0.86	5.46	746	22.39	ECG
Gomoa Asepanyin	Gomoa	Central	-0.87	5.36	798	23.24	ECG
Akyease	Gomoa	Central	-0.84	5.42	815	23.50	ECG
Gomoa Okwawu	Gomoa	Central	-0.79	5.47	890	24.71	ECG
Akropon I	Gomoa	Central	-0.80	5.44	897	24.79	ECG
Ayensuadze	Gomoa	Central	-0.66	5.47	926	25.26	ECG
Akropon	Gomoa	Central	-0.85	5.42	1,397	32.73	ECG
Akyiase	Gomoa	Central	-0.74	5.50	1,453	33.63	ECG
Gomoa Ekrofor	Gomoa	Central	-0.72	5.52	1,706	48.75	ECG
Ankamu	Gomoa	Central	-0.71	5.33	1,814	50.38	ECG

NAME	DISTRICT	RegionName	LONG	LAT	Pop	Total kW	Company
Ampenyi	Komenda Edina Eg	Central	-1.44	5.07	1,331	31.70	ECG
Abrem Ankase	Komenda Edina Eg	Central	-1.40	5.19	1,091	27.93	ECG
Buadukwae	Mfantsiman	Central	-0.85	5.29	588	20.03	ECG
Kromantse Bentsir	Mfantsiman	Central	-1.07	5.20	600	20.11	ECG
Aboano	Mfantsiman	Central	-0.84	5.21	646	20.84	ECG
Gyinakuma	Mfantsiman	Central	-0.92	5.32	667	21.23	ECG
Serafa Beach	Mfantsiman	Central	-0.85	5.21	856	24.15	ECG
Serafa Kokodo	Mfantsiman	Central	-0.84	5.22	1,692	48.45	ECG
Ekurofor	Mfantsiman	Central	-0.91	5.34	2,535	72.42	ECG
Nkwanta	Mfantsiman	Central	-1.24	5.14	941	25.44	ECG
Nwamaso	Twifo Hemang Low	Central	-1.65	5.69	1,281	30.97	ECG
Kayireku	Twifo Hemang Low	Central	-1.62	5.61	911	24.97	ECG
Nyenase Station	Twifo Hemang Low	Central	-1.59	5.60	932	25.35	ECG
Mampoma	Twifo Hemang Low	Central	-1.62	5.67	1,009	26.76	ECG
Ayaase	Twifo Hemang Low	Central	-1.70	5.74	912	24.97	ECG
Mmeaem	Twifo Hemang Low	Central	-1.37	5.30	612	20.28	ECG
Mokwaa Old Town	Twifo Hemang Low	Central	-1.59	5.71	618	20.37	ECG
Denkyira Foso	Twifo Hemang Low	Central	-1.64	5.70	633	20.67	ECG
Akweikrom	Twifo Hemang Low	Central	-1.27	5.30	777	22.86	ECG
Twifo Agona	Twifo Hemang Low	Central	-1.60	5.74	903	24.79	ECG
Bukuruso	Twifo Hemang Low	Central	-1.60	5.47	985	26.08	ECG
Oponso Kese-Nzema	Twifo Hemang Low	Central	-1.79	5.74	1,452	33.55	ECG
Aboabo	Twifo Hemang Low	Central	-1.61	5.66	0	0.00	ECG
Odumase	Twifo Hemang Low	Central	-1.37	5.33	765	22.69	ECG
Buaben	Upper Denkyira	Central	-1.76	5.87	1,066	27.58	ECG
Esaase	Upper Denkyira	Central	-1.78	5.87	546	19.29	ECG
Dunkwa	Upper Denkyira	Central	-1.78	5.95	0	0.00	ECG
Sobroso	Upper Denkyira	Central	-1.77	5.88	552	19.38	ECG
Ayanfure Gyaman	Upper Denkyira	Central	-1.91	5.97	645	20.84	ECG
New Obuase	Upper Denkyira	Central	-2.04	6.09	1,277	30.88	ECG
Atekyem	Upper Denkyira	Central	-1.79	5.97	1,768	49.65	ECG
Diaso	Upper Denkyira	Central	-2.16	6.15	2,409	59.65	ECG
Ayanfuri	Upper Denkyira	Central	-1.89	5.96	2,646	74.18	ECG
Obosomase	Akuapim North	Eastern	-0.17	5.87	0	0.00	ECG
Aburi	Akuapim South	Eastern	-0.17	5.84	0	0.00	ECG
Kiteasi	Akuapim South	Eastern	-0.19	5.81	782	22.95	ECG
Ahuntem Darmang	Akuapim South	Eastern	-0.39	5.82	928	25.26	ECG
Ahwerase	Akuapim South	Eastern	-0.17	5.85	1,110	28.31	ECG
Ankwadobro	Akuapim South	Eastern	-0.34	5.77	1,169	29.13	ECG
Nsabaa	Akuapim South	Eastern	-0.22	5.66	1,231	30.15	ECG
Adamorobe	Akuapim South	Eastern	-0.14	5.82	1,334	31.70	ECG
Medie	Akuapim South	Eastern	-0.32	5.76	0	0.00	ECG
Boso	Asuogyaman	Eastern	0.18	6.54	0	0.00	ECG
Mame Dede	Birem North	Eastern	-0.43	5.80	752	22.51	ECG
Amanfro	Birem North	Eastern	-0.67	5.82	775	22.86	ECG
Kwasi Nyarko	Birem North	Eastern	-0.40	5.80	971	25.91	ECG
Topease	Birem North	Eastern	-0.68	5.87	1,121	28.40	ECG
Asuaba	Birem North	Eastern	-0.43	5.77	1,433	33.25	ECG
Oworam	Birem North	Eastern	-0.60	5.92	1,470	33.81	ECG
Ekoso	Birem North	Eastern	-0.72	5.88	1,834	50.76	ECG
Bunso	Birem North	Eastern	-0.67	5.93	2,159	55.70	ECG
Danso	Birem North	Eastern	-0.52	5.75	0	0.00	ECG
Essam	Birem South	Eastern	-0.97	6.02	570	19.64	ECG
Tabita	Birem South	Eastern	-0.80	5.78	624	20.58	ECG
Suponso	Birem South	Eastern	-0.83	5.90	633	20.67	ECG
Osarase Railway Station	Birem South	Eastern	-0.92	5.80	727	22.13	ECG
Mmofra Mfa Adwen	Birem South	Eastern	-0.85	5.82	761	22.69	ECG
Osenho	Birem South	Eastern	-0.82	5.77	805	23.33	ECG
Aboabo	Birem South	Eastern	-0.95	5.85	0	0.00	ECG
Asamang	East Akim	Eastern	-0.54	6.37	0	0.00	ECG
Potroase	East Akim	Eastern	-0.57	6.12	1,240	30.33	ECG
Ankaase	East Akim	Eastern	-0.50	6.38	809	23.42	ECG
Pempemso	Fanteakwa	Eastern	-0.32	6.31	598	20.11	ECG
Dome	Fanteakwa	Eastern	-0.44	6.35	2,699	75.00	ECG
Dokyi	Kwaebibirem	Eastern	-0.65	6.13	791	23.03	ECG
Akim Kwamang	Kwaebibirem	Eastern	-0.70	6.21	1,021	26.93	ECG

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Akanteng	Kwaebibirem	Eastern	-0.68	6.00	0	0.00	ECG
Kobiriso	Kwaebibirem	Eastern	-0.67	6.02	825	23.59	ECG
Larbikurum	Kwaebibirem	Eastern	-0.95	6.37	899	24.79	ECG
Akyem Abenaso Township	Kwaebibirem	Eastern	-0.75	6.22	946	25.52	ECG
Tweapease	Kwaebibirem	Eastern	-0.90	6.38	0	0.00	ECG
Apesika	Kwahu South	Eastern	-0.58	6.48	566	19.55	ECG
Twewaa	Kwahu South	Eastern	-0.57	6.57	628	20.58	ECG
Sada	Kwahu South	Eastern	-0.71	6.73	638	20.76	ECG
Semboa	Kwahu South	Eastern	-0.60	6.72	639	20.76	ECG
Nkwantanam	Kwahu South	Eastern	-0.70	6.74	741	22.30	ECG
Oboyan No.2	Kwahu South	Eastern	-0.85	6.74	853	24.06	ECG
Hyewohuden	Kwahu South	Eastern	-0.66	6.82	896	24.71	ECG
Yaw Atta Amama	Kwahu South	Eastern	-0.71	6.66	995	26.25	ECG
Abetini Owerebease	Kwahu South	Eastern	-0.72	6.64	1,253	30.41	ECG
Dzaman	Manya Krobo	Eastern	-0.21	6.30	590	20.03	ECG
Dawa Tlim	Manya Krobo	Eastern	-0.22	6.30	637	20.76	ECG
Santowa	Manya Krobo	Eastern	-0.25	6.28	641	20.76	ECG
Sokwenya Sutapong	Manya Krobo	Eastern	-0.26	6.32	670	21.31	ECG
Nyankumase	Manya Krobo	Eastern	-0.24	6.37	682	21.40	ECG
Plekumaso Agbom	Manya Krobo	Eastern	-0.35	6.34	686	21.49	ECG
Fefe	Manya Krobo	Eastern	-0.22	6.42	723	22.04	ECG
Akotue Blorse	Manya Krobo	Eastern	-0.28	6.47	728	22.13	ECG
Akumesu Sisi	Manya Krobo	Eastern	-0.27	6.35	728	22.13	ECG
Tlawa	Manya Krobo	Eastern	-0.22	6.28	768	22.77	ECG
Takorase West	Manya Krobo	Eastern	-0.21	6.35	780	22.95	ECG
Bleponso	Manya Krobo	Eastern	-0.24	6.32	792	23.03	ECG
Wulapong	Manya Krobo	Eastern	-0.27	6.22	837	23.89	ECG
Kokone Abetina Dorsi	Manya Krobo	Eastern	-0.22	6.41	860	24.15	ECG
Osonson	Manya Krobo	Eastern	-0.22	6.31	881	24.53	ECG
Aiyersu	Manya Krobo	Eastern	-0.23	6.43	908	24.88	ECG
Abesle	Manya Krobo	Eastern	-0.23	6.43	1,166	29.13	ECG
Aketebuor	Manya Krobo	Eastern	-0.14	6.22	1,474	33.89	ECG
Kuano	Suhum Kraboa Coa	Eastern	-0.58	5.98	1,125	28.48	ECG
Kwaboanta	Suhum Kraboa Coa	Eastern	-0.57	5.90	1,195	29.60	ECG
Mfranor	Suhum Kraboa Coa	Eastern	-0.56	6.01	1,246	30.33	ECG
Akorabo	Suhum Kraboa Coa	Eastern	-0.35	6.02	1,507	45.20	ECG
Anum Apapam	Suhum Kraboa Coa	Eastern	-0.58	5.97	3,672	101.20	ECG
Fawotiri Kosie Ayesuano	Suhum Kraboa Coa	Eastern	-0.52	5.95	636	20.76	ECG
Adidi Nkatewanso	Suhum Kraboa Coa	Eastern	-0.37	6.07	652	20.93	ECG
Supresu	Suhum Kraboa Coa	Eastern	-0.33	6.03	655	20.93	ECG
Neefio	Suhum Kraboa Coa	Eastern	-0.46	6.06	666	21.23	ECG
Koransan Atebui	Suhum Kraboa Coa	Eastern	-0.32	6.02	700	21.66	ECG
Sowate	Suhum Kraboa Coa	Eastern	-0.57	5.98	719	22.04	ECG
Kwahia	Suhum Kraboa Coa	Eastern	-0.39	6.03	727	22.13	ECG
Trayo	Suhum Kraboa Coa	Eastern	-0.40	6.04	818	23.50	ECG
Ateibu	Suhum Kraboa Coa	Eastern	-0.52	6.05	865	24.23	ECG
Kukua	Suhum Kraboa Coa	Eastern	-0.35	6.02	886	24.62	ECG
Supreso No.2	Suhum Kraboa Coa	Eastern	-0.34	6.04	925	25.26	ECG
Santrama	Suhum Kraboa Coa	Eastern	-0.40	5.99	928	25.26	ECG
Amahia	Suhum Kraboa Coa	Eastern	-0.42	6.03	950	25.52	ECG
Abobiri No.1 & 2	Suhum Kraboa Coa	Eastern	-0.54	6.03	979	26.08	ECG
Nubensu Akyeansa	Suhum Kraboa Coa	Eastern	-0.58	6.02	992	26.17	ECG
Kromamen	Suhum Kraboa Coa	Eastern	-0.32	6.04	1,025	26.93	ECG
Aponapono	Suhum Kraboa Coa	Eastern	-0.53	6.05	1,197	29.60	ECG
Oboase	Suhum Kraboa Coa	Eastern	-0.58	6.08	1,202	29.68	ECG
Bong Densuso	Suhum Kraboa Coa	Eastern	-0.57	6.10	1,290	31.06	ECG
Abenabu	Suhum Kraboa Coa	Eastern	-0.42	6.02	1,588	46.49	ECG
Kofi Pare	Suhum Kraboa Coa	Eastern	-0.57	5.93	1,626	47.13	ECG
Prasokuma	West Akim	Eastern	-1.03	6.40	722	22.04	ECG
Sutri	Yilo Krobo	Eastern	-0.25	6.22	630	20.67	ECG
Opleyo	Yilo Krobo	Eastern	-0.12	6.19	694	21.57	ECG
Ominase	Yilo Krobo	Eastern	-0.27	6.20	705	21.75	ECG
Etwiso Otrompe	Yilo Krobo	Eastern	-0.23	6.10	788	23.03	ECG
Tsunya	Yilo Krobo	Eastern	-0.22	6.27	816	23.50	ECG
Tsremanteng Yoyim	Yilo Krobo	Eastern	-0.21	6.14	844	23.97	ECG
Trawa	Yilo Krobo	Eastern	-0.22	6.22	845	23.97	ECG

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Sikaben	Yilo Krobo	Eastern	-0.15	6.17	864	24.23	ECG
Aboa Besease	Yilo Krobo	Eastern	-0.85	6.08	887	24.62	ECG
Oluahai	Yilo Krobo	Eastern	-0.20	6.27	1,033	27.02	ECG
Akwapim Yilor	Yilo Krobo	Eastern	-0.25	6.24	1,189	29.51	ECG
Tsremanteng Doguanor	Yilo Krobo	Eastern	-0.25	6.15	1,253	30.41	ECG
Bornya	Yilo Krobo	Eastern	-0.19	6.20	1,567	46.23	ECG
Achimota SS	Accra	Greater Accra	-0.19	5.60	0	0.00	ECG
Anumle	Accra	Greater Accra	-0.21	5.63	807	23.33	ECG
Legon	Accra	Greater Accra	-0.18	5.65	910	24.88	ECG
South Legon	Accra	Greater Accra	-0.19	5.64	1,489	34.19	ECG
Green Hill	Accra	Greater Accra	-0.20	5.63	1,679	48.28	ECG
Achimota Police Station	Accra	Greater Accra	-0.23	5.63	1,834	50.76	ECG
Achimota Sec & Prim Sch.	Accra	Greater Accra	-0.23	5.63	2,723	75.26	ECG
Lotsobuer	Dangbe West	Greater Accra	0.20	5.80	634	20.67	ECG
Adentan	Ga	Greater Accra	-0.17	5.70	713	21.96	ECG
Ashiflao	Ga	Greater Accra	-0.48	5.70	720	22.04	ECG
Adenta No.1	Ga	Greater Accra	-0.18	5.75	820	23.50	ECG
Pokuase Agric. Quarters	Ga	Greater Accra	-0.27	5.68	857	24.15	ECG
Tokuse	Ga	Greater Accra	-0.38	5.55	881	24.53	ECG
Tsokome	Ga	Greater Accra	-0.33	5.50	1,020	26.93	ECG
C.F.C Quarters Dome	Ga	Greater Accra	-0.23	5.65	1,108	28.22	ECG
Christian	Ga	Greater Accra	-0.17	5.55	1,354	32.09	ECG
Atomic Energy Quarters	Ga	Greater Accra	-0.25	5.68	1,395	32.73	ECG
Adzen Kotoku	Ga	Greater Accra	-0.35	5.73	2,312	58.19	ECG
Kwashiman Bu	Ga	Greater Accra	-0.27	5.60	2,664	74.44	ECG
Saru	Bole	Northern	-2.65	9.50	778	14.63	NED
Vondiali	Bole	Northern	-2.55	9.58	792	14.72	NED
Kpuribayiri	Bole	Northern	-2.58	9.55	835	14.92	NED
Yerikori	Bole	Northern	-2.63	9.50	838	14.92	NED
Soma	Bole	Northern	-2.32	9.47	856	14.99	NED
Yipala	Bole	Northern	-2.42	9.58	967	15.51	NED
Ure	Bole	Northern	-2.63	9.57	1,002	15.68	NED
Tuna	Bole	Northern	-2.42	9.50	2,927	46.89	NED
Nyanga	Bole	Northern	-2.38	9.25	606	8.47	NED
Kong	Bole	Northern	-2.30	9.53	608	8.47	NED
Sanjeri	Bole	Northern	-2.54	9.43	618	8.51	NED
Kakweise	Bole	Northern	-2.47	9.22	696	8.87	NED
Gbinyiri	Bole	Northern	-2.62	9.40	727	14.40	NED
Jentilpe	Bole	Northern	-2.35	9.23	735	14.43	NED
Fuu	East Gonja	Northern	-0.64	9.29	759	14.56	NED
Kpalisogu	Nanumba	Northern	-1.03	9.56	732	14.43	NED
Demon	Saboba Chereponi	Northern	0.22	9.52	959	15.48	NED
Kpalung	Savelugu Nanton	Northern	-0.79	9.70	609	8.47	NED
Fooshegu	Tamale	Northern	-0.87	9.33	755	14.56	NED
Gbanjon	Tolon Kumbungu	Northern	-1.10	9.47	1,030	15.84	NED
Kasuridaborshe	Tolon Kumbungu	Northern	-1.08	9.50	2,124	31.91	NED
Boggo	Tolon Kumbungu	Northern	-1.00	9.53	651	8.67	NED
Wambong	West Gonja	Northern	-1.06	9.34	649	8.63	NED
Tusaani	Yendi	Northern	-0.05	9.54	755	14.56	NED
Gnani	Yendi	Northern	0.18	9.37	807	14.79	NED
Tugu	Yendi	Northern	-0.62	9.39	852	14.99	NED
Gbungbalaga	Yendi	Northern	-0.02	9.38	1,490	23.31	NED
Adibo	Yendi	Northern	0.01	9.32	2,212	37.71	NED
Tidan	Zabzugu Tatale	Northern	0.19	9.39	714	8.96	NED
Boko	bongo	Upper East	-0.29	11.01	0	0.00	ECG
Widana	Bawku East	Upper East	-0.02	11.06	776	14.63	NED
Kuka	Bawku East	Upper East	-0.02	11.01	711	8.96	NED
Nombokko	Bawku East	Upper East	-0.23	10.87	744	14.52	NED
Nware Koltamise	Bawku East	Upper East	-0.16	11.12	744	14.52	NED
Lalsaa	Bawku East	Upper East	-0.17	11.00	758	14.56	NED
Bakanga Zorsi	Bawku East	Upper East	-0.35	11.04	770	14.59	NED
Yarigungu	Bawku East	Upper East	-0.33	11.08	771	14.59	NED
Sugudi Part 2	Bawku East	Upper East	-0.09	11.07	798	14.76	NED
Kulok-Suugin	Bawku East	Upper East	-0.34	11.01	806	14.79	NED
Kugsabla	Bawku East	Upper East	-0.12	10.90	899	15.19	NED
Tempelim	Bawku East	Upper East	-0.29	11.02	925	15.32	NED

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Gumakutari	Bawku East	Upper East	-0.25	11.15	952	15.48	NED
Tansia Market	Bawku East	Upper East	-0.33	10.92	965	15.51	NED
Zoogo	Bawku East	Upper East	-0.33	10.99	988	15.64	NED
Sapelliga Kare	Bawku East	Upper East	-0.40	11.09	1,009	15.71	NED
Pialoko	Bawku East	Upper East	-0.12	11.05	1,104	16.17	NED
Bimpiela	Bawku East	Upper East	-0.03	11.08	1,159	16.40	NED
Zambala West	Bawku East	Upper East	-0.10	10.95	1,171	16.43	NED
Tarivago	Bawku East	Upper East	-0.06	11.02	1,208	22.03	NED
Baribari	Bawku East	Upper East	-0.25	11.12	1,211	22.03	NED
Sugudi Part 1	Bawku East	Upper East	-0.10	11.07	1,211	22.03	NED
Zambala East	Bawku East	Upper East	-0.10	10.95	1,289	22.39	NED
Mandago	Bawku East	Upper East	-0.09	11.08	1,352	22.72	NED
Taraganga	Bawku East	Upper East	-0.15	10.93	1,394	22.88	NED
Aniisi	Bawku East	Upper East	-0.25	10.95	1,634	24.28	NED
Karatesi	Bawku East	Upper East	-0.08	10.93	1,671	29.84	NED
Sabzundi	Bawku East	Upper East	-0.05	11.00	2,053	31.58	NED
Ninkogo	Bawku East	Upper East	-0.17	11.08	2,425	38.72	NED
Navrongo HV	Bawku East	Upper East	-1.09	10.92	0	0.00	NED
Susudi	Bawku East	Upper East	-0.10	11.00	577	8.31	NED
Dabia	Bawku East	Upper East	-0.13	11.01	586	8.40	NED
Deega	Bawku East	Upper East	-0.02	11.04	588	8.40	NED
Sarabogo Central	Bawku East	Upper East	-0.17	11.06	618	8.51	NED
Kpatua	Bawku East	Upper East	-0.24	10.87	630	8.60	NED
Adukgbal	Bawku East	Upper East	-0.07	10.95	633	8.60	NED
Yarega	Bawku East	Upper East	-0.04	11.08	633	8.60	NED
Kpalewege Chiefs House	Bawku East	Upper East	-0.30	11.01	634	8.60	NED
Zoabuliga West	Bawku East	Upper East	-0.16	11.04	637	8.60	NED
Nakambo	Bawku East	Upper East	-0.09	11.03	645	8.63	NED
Nakum	Bawku East	Upper East	-0.88	11.02	650	8.67	NED
Benguri	Bawku East	Upper East	-0.12	10.99	659	8.67	NED
Sapelliga Part Tegbila	Bawku East	Upper East	-0.30	11.02	680	8.80	NED
Bulugu	Bawku East	Upper East	-0.20	11.10	681	8.80	NED
Narango Boko	Bawku East	Upper East	-0.27	10.95	683	8.80	NED
Gumyoko Zawgo	Bawku East	Upper East	-0.33	10.97	690	8.83	NED
Nyorugu Part	Bawku East	Upper East	-0.29	11.02	697	8.87	NED
Sapelliga Bugula	Bawku East	Upper East	-0.40	11.10	713	8.96	NED
Salipiga	Bawku East	Upper East	-0.40	11.09	714	8.96	NED
Bugri Natinga West	Bawku East	Upper East	-0.14	10.97	717	14.40	NED
Sapelliga Natinga Part	Bawku East	Upper East	-0.35	10.97	719	14.40	NED
Wempsi Bugri	Bawku East	Upper East	-0.14	10.98	719	14.40	NED
Bugri Natinga East	Bawku East	Upper East	-0.14	10.97	728	14.43	NED
Kulok-Tengiri	Bawku East	Upper East	-0.34	11.01	737	14.43	NED
Zoabuliga East	Bawku East	Upper East	-0.16	11.04	738	14.43	NED
Aniango	Bawku West	Upper East	-0.42	10.94	920	15.32	NED
Kansorgo	Bawku West	Upper East	-0.42	11.02	1,044	15.87	NED
Shiega Namolgo Part	Bawku West	Upper East	-0.72	10.72	1,116	16.20	NED
Gunga	Bawku West	Upper East	-0.47	11.03	608	8.47	NED
Sekoti Benzure	Bolgatanga	Upper East	-0.62	10.79	739	14.46	NED
Gari Logri	Bolgatanga	Upper East	-0.70	10.75	741	14.52	NED
Kumbosigo	Bolgatanga	Upper East	-0.82	10.80	743	14.52	NED
Tongo Nayire Puhug	Bolgatanga	Upper East	-0.81	10.71	747	14.52	NED
Gorogo Gorzuure	Bolgatanga	Upper East	-0.82	10.70	753	14.56	NED
Balungu Gatorisi Part 2	Bolgatanga	Upper East	-0.86	10.95	757	14.56	NED
Yikene Nayirekura	Bolgatanga	Upper East	-0.89	10.97	761	14.56	NED
Yinduri	Bolgatanga	Upper East	-0.82	10.65	775	14.63	NED
Zuarungu Konkoo	Bolgatanga	Upper East	-0.80	10.79	816	14.79	NED
Yikine	Bolgatanga	Upper East	-0.88	10.77	831	14.92	NED
Sumbrungo Woebongo	Bolgatanga	Upper East	-0.93	10.82	838	14.92	NED
Gambrungo Azaabisi Part 2	Bolgatanga	Upper East	-0.90	10.90	904	15.25	NED
Baare Sapari	Bolgatanga	Upper East	-0.80	10.72	906	15.28	NED
Winkogo Gorogu	Bolgatanga	Upper East	-0.83	10.70	927	15.32	NED
Dusi Gari	Bolgatanga	Upper East	-0.67	10.77	935	15.35	NED
Baare Lakum	Bolgatanga	Upper East	-0.80	10.73	976	15.55	NED
Aseamabi	Bolgatanga	Upper East	-0.71	10.77	1,008	15.71	NED
Yameriga	Bolgatanga	Upper East	-0.74	10.72	1,019	15.74	NED
Dusi Nayiri	Bolgatanga	Upper East	-0.69	10.77	1,028	15.84	NED

NAME	DISTRICT	RegionName	LONG	LAT	Pop	Total kW	Company
Yorogo Abangabisi	Bolgatanga	Upper East	-0.82	10.85	1,029	15.84	NED
Bulugo Yipala	Bolgatanga	Upper East	-0.81	10.82	1,058	15.91	NED
Gambibigo Asantanbisi	Bolgatanga	Upper East	-0.83	10.76	1,077	16.04	NED
Sherigu Nyokuku	Bolgatanga	Upper East	-0.90	10.77	1,100	16.17	NED
Azuabisi Gambibigo	Bolgatanga	Upper East	-0.82	10.76	1,135	16.27	NED
Amogribisi	Bolgatanga	Upper East	-0.92	10.80	1,175	16.47	NED
Winkogo Abokobisi	Bolgatanga	Upper East	-0.87	10.72	1,222	22.13	NED
Kpatia	Bolgatanga	Upper East	-0.75	10.74	1,226	22.13	NED
Shia Main	Bolgatanga	Upper East	-0.84	10.67	1,253	22.23	NED
Zaare Ayorogobisi	Bolgatanga	Upper East	-0.86	10.82	1,294	22.39	NED
Gorogo Ykpemike	Bolgatanga	Upper East	-0.82	10.70	1,339	22.62	NED
Yagzore	Bolgatanga	Upper East	-0.77	10.75	1,350	22.72	NED
Tongo Wakii	Bolgatanga	Upper East	-0.80	10.70	1,489	23.31	NED
Nyogbare	Bolgatanga	Upper East	-0.62	10.77	1,526	23.75	NED
Zuarungu Moshie	Bolgatanga	Upper East	-0.79	10.80	1,649	24.31	NED
Zuarungu Katanga	Bolgatanga	Upper East	-0.81	10.78	1,766	30.27	NED
Dachiu	Bolgatanga	Upper East	-0.80	10.82	2,237	37.84	NED
Apuungu	Bolgatanga	Upper East	-0.80	10.84	631	8.60	NED
Zaare Akusiabisi	Bolgatanga	Upper East	-0.86	10.82	643	8.63	NED
Datuku Nayire	Bolgatanga	Upper East	-0.63	10.70	652	8.67	NED
Veas Asoranabisi	Bolgatanga	Upper East	-0.85	10.87	664	8.76	NED
Duusi Bugban Part	Bolgatanga	Upper East	-0.68	10.77	680	8.80	NED
Amonobisi Yarigabisi Part	Bolgatanga	Upper East	-0.81	10.79	698	8.87	NED
Atongobisi Gambibigo	Bolgatanga	Upper East	-0.82	10.76	699	8.87	NED
Baare Tengre	Bolgatanga	Upper East	-0.79	10.72	700	8.93	NED
Yikene Asobisi	Bolgatanga	Upper East	-0.88	10.95	701	8.93	NED
Sumbrungo Agusi Part 1	Bolgatanga	Upper East	-0.92	10.86	727	14.40	NED
Nangodi Nakpaliga No.2	Bolgatanga	Upper East	-0.67	10.87	729	14.43	NED
Amogribisi Part	Bolgatanga	Upper East	-0.95	10.80	734	14.43	NED
Gbanbigo	Bolgatanga	Upper East	-0.77	10.72	738	14.43	NED
Kpale	Bolgatanga	Upper East	-0.72	10.77	0	0.00	ECG
Samboligu Bungu	Bongo	Upper East	-0.87	10.96	757	14.56	NED
Veas Gunga	Bongo	Upper East	-0.86	10.87	781	14.69	NED
Zoko Atanshieka	Bongo	Upper East	-0.94	10.92	799	14.76	NED
Zoko Kodorogo Part 3	Bongo	Upper East	-0.90	10.91	802	14.76	NED
Kabre Soe	Bongo	Upper East	-0.77	10.93	865	15.08	NED
Feo Nabisi Part	Bongo	Upper East	-0.86	10.94	915	15.28	NED
Zoko Kodorogo	Bongo	Upper East	-0.88	10.95	922	15.32	NED
Balungu Tongonabisi Part	Bongo	Upper East	-0.88	10.92	924	15.32	NED
Kinkua	Bongo	Upper East	-0.93	10.77	946	15.44	NED
Zoko Kango	Bongo	Upper East	-0.89	10.93	980	15.61	NED
Feo Nabisi	Bongo	Upper East	-0.82	10.99	1,366	22.75	NED
Kasingo	Bongo	Upper East	-1.07	10.95	594	8.40	NED
Balungu Nabisi Part 4	Bongo	Upper East	-0.82	10.92	616	8.47	NED
Bogorogo	Bongo	Upper East	-0.75	10.87	622	8.57	NED
Kadare Part	Bongo	Upper East	-0.89	10.95	644	8.63	NED
Dua Apuwong	Bongo	Upper East	-0.77	10.84	654	8.67	NED
Zoko Kadare	Bongo	Upper East	-0.90	10.95	679	8.80	NED
Veas Kulpeliga	Bongo	Upper East	-0.86	10.87	718	14.40	NED
Gurogo	Bongo	Upper East	-0.99	10.92	722	14.40	NED
Samboligu Kansoe	Bongo	Upper East	-0.85	10.97	728	14.43	NED
Boko Akumbelimbisi	Bongo	Upper East	-0.83	10.97	738	14.43	NED
Namonsa	Builsa	Upper East	-1.00	10.79	891	15.15	NED
Chuchuiliga Nawaasa	Builsa	Upper East	-1.19	10.81	955	15.48	NED
Chondema	Builsa	Upper East	-1.16	10.77	546	8.21	NED
Azugyeri	Builsa	Upper East	-1.18	10.84	623	8.57	NED
Tiedema Part	Builsa	Upper East	-1.21	10.80	641	8.63	NED
Jaata	Builsa	Upper East	-1.19	10.80	650	8.67	NED
Chuchuliga Nanjopiung	Builsa	Upper East	-1.17	10.81	670	8.76	NED
Akuteyeri	Builsa	Upper East	-1.15	10.80	723	14.40	NED
Kadina Part	Kassena Nankana	Upper East	-1.32	10.95	743	14.52	NED
Kayilo	Kassena Nankana	Upper East	-1.32	10.97	746	14.52	NED
Sirigu Gerebesi	Kassena Nankana	Upper East	-0.92	10.94	756	14.56	NED
Kassaningo	Kassena Nankana	Upper East	-1.00	10.92	775	14.63	NED
Kandiga Atiyoro	Kassena Nankana	Upper East	-0.97	10.90	825	14.89	NED
Nyangania	Kassena Nankana	Upper East	-1.19	10.82	839	14.95	NED

NAME	DISTRICT	RegionName	LONG	LAT	Pop	Total kW	Company
Yuwa Afarigabisi	Kassena Nankana	Upper East	-0.92	11.00	846	14.95	NED
Manyaro South Dombise	Kassena Nankana	Upper East	-0.98	10.96	864	15.08	NED
Yidania	Kassena Nankana	Upper East	-1.29	10.85	871	15.08	NED
Mirigu Achobisi Part	Kassena Nankana	Upper East	-0.99	10.92	879	15.12	NED
Kulebngu	Kassena Nankana	Upper East	-1.08	10.75	897	15.19	NED
Nayiri Kologu	Kassena Nankana	Upper East	-1.07	10.74	947	15.44	NED
Sirigu Basengo	Kassena Nankana	Upper East	-0.93	10.95	970	15.51	NED
Gwenia	Kassena Nankana	Upper East	-1.22	10.84	975	15.55	NED
Badung	Kassena Nankana	Upper East	-1.04	10.97	995	15.68	NED
Manyaro North	Kassena Nankana	Upper East	-0.99	10.95	996	15.68	NED
Anawhinia	Kassena Nankana	Upper East	-1.32	10.92	1,001	15.68	NED
Wombio	Kassena Nankana	Upper East	-1.30	10.92	1,003	15.68	NED
Kandiga Kurugu	Kassena Nankana	Upper East	-0.93	10.88	1,035	15.84	NED
Chania Kalevio Abuenia	Kassena Nankana	Upper East	-1.09	10.99	1,035	15.84	NED
Gaane	Kassena Nankana	Upper East	-1.07	10.84	1,068	16.00	NED
Vonania Anarabisi	Kassena Nankana	Upper East	-1.07	10.85	1,092	16.07	NED
Manyaro	Kassena Nankana	Upper East	-0.98	10.96	1,159	16.40	NED
Atibabisi Kandiga	Kassena Nankana	Upper East	-0.97	10.90	1,172	16.43	NED
Navio Primary School	Kassena Nankana	Upper East	-1.05	10.97	1,180	16.53	NED
Gwenia Worania Part	Kassena Nankana	Upper East	-1.30	10.84	1,195	22.00	NED
Kaluiooguro	Kassena Nankana	Upper East	-1.30	10.92	1,242	22.19	NED
Punyaroy	Kassena Nankana	Upper East	-1.06	10.91	1,273	22.36	NED
Sirigugunwoko	Kassena Nankana	Upper East	-0.93	10.95	1,317	22.55	NED
Mirigu Achobisi	Kassena Nankana	Upper East	-0.98	10.92	1,322	22.55	NED
Nakolo	Kassena Nankana	Upper East	-1.05	10.99	1,327	22.55	NED
Janania	Kassena Nankana	Upper East	-1.07	10.86	1,344	22.68	NED
Nabango	Kassena Nankana	Upper East	-0.97	10.93	1,462	23.24	NED
Telania	Kassena Nankana	Upper East	-1.06	10.92	1,481	23.28	NED
Kanania	Kassena Nankana	Upper East	-1.32	10.94	1,662	24.44	NED
Badania	Kassena Nankana	Upper East	-1.08	10.87	1,694	29.91	NED
Asunia	Kassena Nankana	Upper East	-1.26	10.86	1,944	31.12	NED
Bonia	Kassena Nankana	Upper East	-1.12	10.87	1,961	31.16	NED
Mirigu Wolongo	Kassena Nankana	Upper East	-0.98	10.92	600	8.44	NED
Kasanongo	Kassena Nankana	Upper East	-1.00	10.90	614	8.47	NED
Abilu	Kassena Nankana	Upper East	-1.20	10.83	622	8.57	NED
Kalevio Aboenia Part	Kassena Nankana	Upper East	-1.26	10.84	645	8.63	NED
Mirigu Gonnem	Kassena Nankana	Upper East	-0.99	10.92	649	8.63	NED
Sirigu Basiego	Kassena Nankana	Upper East	-0.94	10.97	655	8.67	NED
Kumbusigo Part	Kassena Nankana	Upper East	-0.95	10.87	666	8.76	NED
Sirigu Basiengo Part	Kassena Nankana	Upper East	-0.94	10.95	677	8.80	NED
Ziasa Bui	Kassena Nankana	Upper East	-1.11	10.77	689	8.83	NED
Kozigo	Kassena Nankana	Upper East	-1.05	10.95	696	8.87	NED
Kungabnia	Kassena Nankana	Upper East	-1.03	10.84	696	8.87	NED
Yuwa Gingirigo	Kassena Nankana	Upper East	-0.88	10.97	704	8.93	NED
Sabisi	Kassena Nankana	Upper East	-0.97	10.97	714	8.96	NED
Natugnia Hyogsi	Kassena Nankana	Upper East	-0.96	10.99	723	14.40	NED
Sirigu Busongo	Kassena Nankana	Upper East	-0.94	10.99	733	14.43	NED
Abulo Part	Kassena Nankana	Upper East	-1.22	10.82	733	14.43	NED
Mengwe	Wa	Upper West	-2.32	9.98	1,591	24.08	NED
Sing	Wa	Upper West	-2.44	9.99	744	14.52	NED
Woliyiri	Wa	Upper West	-2.52	9.83	781	14.69	NED
Dariguoyiri	Wa	Upper West	-2.52	9.95	792	14.72	NED
Baayiri	Wa	Upper West	-2.31	10.20	840	14.95	NED
Kandiew	Wa	Upper West	-2.63	9.90	849	14.95	NED
Chegli	Wa	Upper West	-2.45	10.12	860	15.05	NED
Jingu	Wa	Upper West	-2.58	10.07	861	15.05	NED
Bankpama	Wa	Upper West	-2.72	9.92	864	15.08	NED
Pirisi	Wa	Upper West	-2.45	10.10	1,084	16.07	NED
Pisi	Wa	Upper West	-2.68	9.97	1,184	16.56	NED
Buli	Wa	Upper West	-2.57	9.85	1,456	23.15	NED
Kpongu	Wa	Upper West	-2.52	10.00	1,713	30.04	NED
Tanina	Wa	Upper West	-2.47	9.89	1,909	30.96	NED
Berenyasias	Wa	Upper West	-2.65	9.92	639	8.63	NED
Chansa	Wa	Upper West	-2.57	10.00	678	8.80	NED
Janbusi	Wa	Upper West	-2.71	10.02	729	14.43	NED
Kudawukope	Akatsi	Volta	1.17	6.10	712	21.96	ECG

NAME	DISTRICT	RegionName	LONG	LAT	Pop	Total kW	Company
Viepe Adom	Akatsi	Volta	1.16	6.10	1,556	46.02	ECG
Odomiabra	Ho	Volta	0.53	6.70	825	23.59	ECG
Havekope	Ho	Volta	1.13	6.12	1,049	27.28	ECG
Avenui	Ho	Volta	0.31	6.59	1,705	48.75	ECG
Woti	Hohoe	Volta	0.54	7.02	725	22.13	ECG
Afegame	Hohoe	Volta	0.59	7.13	1,081	27.75	ECG
Vodza	Keta	Volta	1.00	5.94	856	24.15	ECG
Keta-Kedzi	Keta	Volta	1.02	5.97	2,652	74.27	ECG
Agorvi	Ketu	Volta	0.97	6.19	629	20.67	ECG
Kpoglu	Ketu	Volta	1.07	6.17	684	21.49	ECG
Ehi-Horme	Ketu	Volta	0.96	6.15	841	23.89	ECG
Mafi Sasekpe	North Tongu	Volta	0.54	6.22	1,250	30.41	ECG
Adidome	North Tongu	Volta	0.50	6.08	4,836	130.03	ECG
Drakope	North Tongu	Volta	0.46	6.14	960	25.70	ECG
Biakokrom	Ahanta West	Western	-1.91	4.89	777	22.86	ECG
Ampemkrom	Bibiani Anhwiaso	Western	-2.29	6.20	754	22.60	ECG
Salman	Nzema East	Western	-2.22	5.02	926	25.26	ECG
Anibil	Nzema East	Western	-2.17	5.00	672	21.31	ECG
Kukoavile	Nzema East	Western	-2.17	4.97	753	22.60	ECG
Banso	Nzema East	Western	-2.07	5.13	1,075	27.75	ECG
Nyame Bekyere No.1	Wassa Amenfi	Western	-2.20	5.56	651	20.93	ECG
Old Dawurampon	Wassa Amenfi	Western	-2.03	5.70	717	21.96	ECG
Suhienso	Wassa Amenfi	Western	-1.98	5.75	976	25.99	ECG
Dumama	Wassa West	Western	-1.58	5.37	559	19.47	ECG
Saponso No.2	Wassa West	Western	-1.65	5.57	560	19.55	ECG
Bonsaso Atakora Krom	Wassa West	Western	-2.01	5.19	625	20.58	ECG
Sekyere Heman	Wassa West	Western	-1.57	5.18	745	22.30	ECG
New Kedadwen	Wassa West	Western	-2.08	5.03	747	22.39	ECG
Adansi	Wassa West	Western	-1.77	5.12	907	24.88	ECG
Huniiso	Wassa West	Western	-2.07	5.38	1,334	31.70	ECG
Aboabo	Yilo Krobo	Western	-0.23	6.10	0	0.00	ECG

List of BSP

BSP	Transformer ID	Rated Voltage(kV)	Capacity (MVA)	BSP	Transformer ID	Rated Voltage(kV)	Capacity (MVA)
Achimota	T1	161/34.5	33	Bogoso	T1	161/34.5	33
	T2	161/34.5	66		T2	161/34.5	33
	T3	161/34.5	66	Tarkwa	T1	161/11.5/3.3	20
	T4	161/34.5	66		T2	161/34.5/11.5	33
Mallam	T1	161/34.5	66	Cape Coast	T3	161/34.5	33
	T2	161/34.5	66		T1	161/11.5/6.6	13
New Tema	T1	161/34.5	66	Winneba	T2	161/34.5/11.5	33
	T2	161/34.5	33		T1	161/11.5/6.6	5
	T3	161/34.5	66	Ho	T2	161/11.5/6.6	20
	T4	161/34.5	66		T1	69/11.5	7
Kumasi	T1	161/11.5/13.2	13	Kpandu	T2	69/34.5/11.5	13
	T2	161/11.5/13.2	13		T1	69/34.5	10
	T3	161/34.5	66		T1	69/34.5	7
	T4	161/34.5	66		T1	161/74.3/11.5	25
	T5	161/34.5	33		T2	161/69/34.5	33
Obuasi	T1	161/6.6/11.5	20	Sogakope	T1	69/34.5	15
	T2	161/6.6/11.5	20		T1	161/34.5	33
	T3	161/6.6/11.5	20		T2	161/34.5	33
Konongo	T1	161/11.5/6.6	5	Sunyani	T1	161/36/11.5	20
	T2	161/11.5/6.6	5		T2	161/36/11.5	20
Nkawkaw	T1	161/11.5/6.6	13	Techiman	T3	161/36/11.5	33
	T1	161/34.5	13		T1	161/36/11.5	20
Asawinso	T1	161/11.5/6.6	5	Tamale	T1	161/36/11.5	20
	T2	161/34.5	13		T2	161/36/11.5	20
Esiama	T1	161/34.5	33	Yendi	T1	161/34.5	13
	T1	161/11.5/6.6	13		T1	161/36/11.5	20
Tafo	T1	161/11.5/6.6	13	Bolgatanga	T1	161/36/11.5	20
	T2	161/34.5	33		T1	161/36	13
Takoradi	T1	161/34.5	33	Sawla	T1	161/36	13
	T3	161/34.5	33		Total Capacity (MVA)		

List of Primary Substations

Region	Name	Capacity (MVA)	Region	Name	Capacity (MVA)	Region	Name	Capacity (MVA)	Region	Name	Capacity (MVA)	Region	Name	Capacity (MVA)
ECG (Accra)	A(Odorkor)	2 x 20 MVA	ECG (Tema)	Station A	2 x 20 MVA	ECG (Western)	Bekwai(P)	1 x 2.5 MVA	ECG (Eastern)	Akwatia	1 x 5 MVA	ECG (Central)	Sub-total	40 MVA
	B(Korle Bu)	2 x 20 MVA		Ashiaman	2 x 20 MVA		Aboso I	1 x 5 MVA		Asebu	1 x 1.5 MVA			
	C(Achimota Village)	2 x 20 MVA		Asutuare	1 x 10 MVA		Amansie	1 x 20 MVA		Benso	1 x 5 MVA			
	D(Avenor)	2 x 20 MVA		Station B	1 x 20 MVA		Awaso	1 x 20 MVA		Cape Coast(BSP)	1 x 10 MVA			
	E(Transhipment)	2 x 20 MVA		Station D	1 x 10 MVA		Axim	1 x 5 MVA		Fosu	1 x 5 MVA			
	F(Kokomlemlé)	1 x 20 MVA		Station E	2 x 20 MVA		Takoradi B	1 x 20 MVA		Saltpond	1 x 5 MVA			
	G(Power House)	2 x 20 MVA		Ferofabric	1 x 20 MVA		Sub-total	397.5 MVA		Sub-total	26.5 MVA			
	H(Achimota BSP)	2 x 20 MVA		Station H(BSP)	2 x 20 MVA		(Western)	1 x 5 MVA		Aflao	1 x 10 MVA			
	J(Ofankor)	2 x 20 MVA		Juapong	1 x 5 MVA		Bibiani	1 x 5 MVA		Anloga	1 x 2.5 MVA			
	K(Switchback)	2 x 15 MVA		Kpong	1 x 5 MVA		Bonjun	1 x 5 MVA		Hohoe	1 x 2.5 MVA			
	L(Burma Camp)	2 x 20 MVA		Steelworks	1 x 20 MVA		Bonmain	1 x 3.8 MVA		Kpandui(BSP)	1 x 5 MVA			
	M(Legon)	2 x 20 MVA		TTL	1 x 20 MVA		Takoradi C	2 x 10 MVA		Kpeve(BSP)	1 x 2.5 MVA			
	N(Nsawam)	1 x 10 MVA		Wahome	2 x 15 MVA		Daboase Town	1 x 5 MVA		Tsito	1 x 2.5 MVA			
	Mallam BSP	2 x 20 MVA		Lashibi	2 x 20 MVA		Daboase W/Works	2 x 5 MVA		Sub-total	25 MVA			
	P(Weiija)	2 x 5 MVA		Sub-total	380 MVA		Damang	2 x 15 MVA		ECG Total	1761 MVA			
	Q(Teshie Nunqua)	2 x 10 MVA		Kumasi(BSP)	2 x 20 MVA		Gag	1 x 10 MVA		VRA-NED	1 x 5 MVA			
	R(Ridge)	2 x 20 MVA		Adoato(B)	2 x 20 MVA		Inchaban	2 x 2.5 MVA		Wa	1 x 5 MVA			
S(Kwashiemman)	2 x 10 MVA	Abuakwa	2 x 20 MVA	Jejetreso	1 x 2.5 MVA	Navrongo	1 x 3 MVA							
T(Adenta)	2 x 10 MVA	Barekese	2 x 5 MVA	Sefwi	1 x 5 MVA	Bawku	1 x 3 MVA							
U(Dodowa)	1 x 1 MVA	Airport(C)	2 x 20 MVA	Tarkwa (BSP)	1 x 5 MVA	Wenchi	1 x 3 MVA							
V(Dansoman)	2 x 10 MVA	Kaase(D)	2 x 20 MVA	Teberebe1	1 x 5 MVA									
W(Mampong)	1 x 10 MVA	Magazine(E)	2 x 20 MVA	Teberebe2	1 x 10 MVA									
Y(Baatsonaa)	1 x 10 MVA	Amanfrom(F)	2 x 20 MVA											
Z(Tokuse)	1 x 20 MVA	Kumawu(L)	1 x 5 MVA											
		Effiduase(M)	1 x 5 MVA											
		Sub-total	721 MVA											
				Sub-total	171.3 MVA									
						VRA-NED Total	19 MVA							

[USD/km]

	kV	Description	Unit	Material	Installation	Grand Total
4	11	50 mm2 AAC (without pole)	km	2,894.23	1,075.11	3,969.34
5	11	150 mm2 AAC	km	22,013.72	3,141.16	25,154.88
6	11	150 mm2 AAC (without pole)	km	4,744.04	1,117.87	5,861.92
7	11	240 mm2 AAC	km	25,777.29	3,922.71	29,700.00
8	11	240 mm2 AAC (without pole)	km	6,172.64	939.33	7,111.97
9	11	120 mm2 AAC	km	18,662.33	2,661.61	21,323.94
10	11	120 mm2 AAC (without pole)	km	3,988.36	1,117.87	5,106.24
11	33	120 mm2 AAC	km	21,844.43	3,324.22	25,168.65
12	33	265 mm2 AAC, using wood poles	km	28,641.44	4,358.56	33,000.00
13	33	265 mm2 AAC,using wood poles (without pole)	km	6,858.48	1,043.70	7,902.19
14	33	265 mm2 AAC, using steel towers (2 cct)	km	85,056.39	12,943.61	98,000.00
15	33	400 mm2 AAC, using steel towers (1cct)	km	69,867.75	10,632.25	80,500.00
16	33	400 mm2 AAC, using steel towers (1cct) (without pole)	km	16,730.54	2,546.00	19,276.55
17	33	400 mm2 AAC, using steel towers (2cct)	km	99,811.07	15,188.93	115,000.00
18	11	95 mm2 Al XLPE	km	16,836.18	4,383.55	21,219.73
19	11	120 mm2 Al XLPE	km	20,203.42	5,260.26	25,463.68
20	11	120 mm2 Cu XLPE	km	26,114.03	6,799.17	32,913.20
21	11	3×185 mm2 Al XLPE	km	27,811.76	5,058.02	32,869.78
22	11	3×185 mm2 Cu XLPE	km	35,948.22	6,537.77	42,485.99
23	11	240 mm2 Al XLPE	km	38,527.41	11,127.22	49,654.63
24	33	240 mm2 Cu XLPE	km	49,720.58	14,460.74	64,181.33
25	33	500 mm2 Cu XLPE	km	92,962.71	27,037.29	120,000.00
26	33	630 mm2 Al XLPE	km			105,000.00
27	33	33/0.433 kV PMT 25 KVA	ea	8,580.96	392.88	8,973.85
28	11	11/0.433 kV PMT 25 KVA	ea	6,067.69	335.85	6,403.54
29	33	33/0.433 kV PMT 50 KVA	ea	9,696.15	443.94	10,140.09
30	11	11/0.433 kV PMT 50 KVA	ea	7,070.09	391.33	7,461.42
31	33	33/0.433 kV PMT 100 KVA	ea	10,986.99	470.92	11,457.91
32	11	11/0.433 kV PMT 100 KVA	ea	8,275.76	418.31	8,694.07

33	33	33/0.433 kV PMT 200 KVA	ea	13,109.84	477.67	13,587.50
34	11	11/0.433 kV PMT 200 KVA	ea	9,600.02	445.29	10,045.31
35	33	33/0.433 kV GMT 300 KVA	ea	20,208.55	1,938.48	22,147.04
36	11	11/0.433 kV PMT 300 KVA	ea	10,383.99	435.84	10,819.84
37	33	33/0.433 kV GMT 315 KVA	ea	21,272.16	2,040.51	23,312.67
38	11	11/0.433 kV PMT 315 KVA	ea	10,930.52	458.78	11,389.30
39	33	33/0.433 kV GMT 400 KVA	ea	40,047.98	3,866.30	43,914.28
40	11	11/0.433 kV PMT 400 KVA	ea	20,578.31	1,986.67	22,564.98
41	33	33/0.433 kV GMT 500 KVA	ea	42,155.76	4,069.79	46,225.55
42	11	11/0.433 kV GMT 500 KVA	ea	21,661.38	2,091.23	23,752.61
43	33	33/0.433 kV GMT 750 KVA	ea	44,542.29	3,956.08	48,498.37
44	11	11/0.433 kV GMT 750 KVA	ea	22,887.68	2,032.80	24,920.48
45	33	33/0.433 kV GMT 800 KVA	ea	46,886.62	4,164.30	51,050.92
46	11	11/0.433 kV GMT 800 KVA	ea	24,092.29	2,139.79	26,232.08
47	33	33/0.433 kV GMT 1000 KVA	ea	56,263.95	4,997.16	61,261.10
48	11	11/0.433 kV GMT 1000 KVA	ea	28,910.75	2,567.75	31,478.50
49	33	33/0.433 kV GMT 1600 KVA	ea	67,516.74	5,996.59	73,513.32
50	11	11/0.433 kV GMT 1600 KVA	ea	34,692.90	3,081.30	37,774.19
51		2×20/26MVA Substation 33/11kV (outdoor)	ea			2,500,000.00
52		2×20/26MVA Substation 33/11kV (indoor)	ea			2,700,000.00
53		1×10MVA Substation 33/11kV (outdoor)	ea			1,000,000.00
54		1×5MVA Substation 33/11kV (outdoor)	ea			700,000.00
55		33kV Switching Substation	ea			400,000.00
56		33kV Bay complete with support structures, circuit breakers,current transfers,isolators,	ea			90,000.00
57		Upgrade 1×10MVA to 1×20MVA	ea			340,000.00
58		Upgrade 1×10MVA to 1×15MVA	ea			300,000.00
59		Upgrade 1×0.50MVA to 1×10MVA	ea			240,000.00
60		1×10MVA 33/11kV	ea			200,000.00
61		1×5.0MVA 33/11kV	ea			83,000.00
62		1×2.5MVA 33/11kV	ea			39,000.00
63		33kV Booster station	ea			100,000.00

64		11kV Booster station	ea			800,000.00
65		Upgrade 1cct 11kV to 33kV (wool poles)	km			3,000.00
66		Upgrade 1cct 11kV to 33kV (towers)	km			3,700.00
67		Replace 1cct 11kV AAC 120mm2 to AAC 265mm2 for example	km			17,000.00
68	11/33	Reinsulation of 11kV OHL to 33kV OHL	set	3,114.15	890.29	4,004.44
69		Capacitor 50kvar				124.56
70		Capacitor 150kvar				373.67
71		Capacitor 300kvar				433.41
72		Capacitor 450kvar				493.18
73		Capacitor 600kvar				866.82
74		Capacitor 2000kvar				2,889.40
75		Capacitor 4000kvar				5,778.80