

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 1
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus Loading Summary Report

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus1	33.000		A	0.820	0.176	0.839	97.8	44.0	
			B	0.820	0.176	0.839	97.8	44.0	
			C	0.820	0.176	0.839	97.8	44.0	
Bus2	33.000		A	0.820	0.176	0.839	97.8	44.0	
			B	0.820	0.176	0.839	97.8	44.0	
			C	0.820	0.176	0.839	97.8	44.0	
Bus3	33.000		A	0.303	0.082	0.314	96.5	16.5	
			B	0.303	0.082	0.314	96.5	16.5	
			C	0.303	0.082	0.314	96.5	16.5	
Bus4	33.000		A	0.303	0.087	0.315	96.1	16.6	
			B	0.303	0.087	0.315	96.1	16.6	
			C	0.303	0.087	0.315	96.1	16.6	
Bus5	0.400		A	0.008	0.010	0.013	59.9	54.1	
			B	0.008	0.010	0.013	59.9	54.1	
			C	0.008	0.010	0.013	59.9	54.1	
Bus6	33.000		A	0.295	0.087	0.308	95.9	16.2	
			B	0.295	0.087	0.308	95.9	16.2	
			C	0.295	0.087	0.308	95.9	16.2	
Bus7	33.000		A	0.295	0.087	0.308	95.9	16.2	
			B	0.295	0.087	0.308	95.9	16.2	
			C	0.295	0.087	0.308	95.9	16.2	
Bus8	0.400		A	0.019	0.009	0.021	89.9	89.9	
			B	0.019	0.009	0.021	89.9	89.9	
			C	0.019	0.009	0.021	89.9	89.9	
Bus9	33.000		A	0.276	0.080	0.288	96.0	15.1	
			B	0.276	0.080	0.288	96.0	15.1	
			C	0.276	0.080	0.288	96.0	15.1	
Bus10	33.000		A	0.056	0.004	0.056	99.7	2.9	
			B	0.056	0.004	0.056	99.7	2.9	
			C	0.056	0.004	0.056	99.7	2.9	
Bus11	33.000		A	0.005	0.002	0.006	93.1	0.3	
			B	0.005	0.002	0.006	93.1	0.3	
			C	0.005	0.002	0.006	93.1	0.3	
Bus12	0.400		A	0.005	0.002	0.006	94.5	24.4	
			B	0.005	0.002	0.006	94.5	24.4	
			C	0.005	0.002	0.006	94.5	24.4	
Bus13	33.000		A	0.051	0.004	0.051	99.7	2.7	
			B	0.051	0.004	0.051	99.7	2.7	
			C	0.051	0.004	0.051	99.7	2.7	
Bus14	0.400		A	0.010	0.004	0.011	94.0	47.3	
			B	0.010	0.004	0.011	94.0	47.3	
			C	0.010	0.004	0.011	94.0	47.3	

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 2
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus15	33.000		A	0.040	0.009	0.041	97.7	2.2	
			B	0.040	0.009	0.041	97.7	2.2	
			C	0.040	0.009	0.041	97.7	2.2	
Bus17	33.000		A	0.008	0.009	0.012	66.0	0.6	
			B	0.008	0.009	0.012	66.0	0.6	
			C	0.008	0.009	0.012	66.0	0.6	
Bus18	33.000		A	0.008	0.009	0.012	66.0	0.6	
			B	0.008	0.009	0.012	66.0	0.6	
			C	0.008	0.009	0.012	66.0	0.6	
Bus19	0.400		A	0.008	0.013	0.015	49.6	66.7	
			B	0.008	0.013	0.015	49.6	66.7	
			C	0.008	0.013	0.015	49.6	66.7	
Bus20	0.400		A	0.032	0.014	0.035	91.5	153.1	
			B	0.032	0.014	0.035	91.5	153.1	
			C	0.032	0.014	0.035	91.5	153.1	
Bus21	33.000		A	0.517	0.094	0.526	98.4	27.6	
			B	0.517	0.094	0.526	98.4	27.6	
			C	0.517	0.094	0.526	98.4	27.6	
Bus22	0.400		A	0.024	0.007	0.025	95.6	110.0	
			B	0.024	0.007	0.025	95.6	110.0	
			C	0.024	0.007	0.025	95.6	110.0	
Bus24	33.000		A	0.493	0.086	0.500	98.5	26.3	
			B	0.493	0.086	0.500	98.5	26.3	
			C	0.493	0.086	0.500	98.5	26.3	
Bus25	0.400		A	0.027	0.012	0.030	90.9	129.7	
			B	0.027	0.012	0.030	90.9	129.7	
			C	0.027	0.012	0.030	90.9	129.7	
Bus26	33.000		A	0.005	0.002	0.006	93.1	0.3	
			B	0.005	0.002	0.006	93.1	0.3	
			C	0.005	0.002	0.006	93.1	0.3	
Bus27	0.400		A	0.005	0.002	0.006	94.5	24.4	
			B	0.005	0.002	0.006	94.5	24.4	
			C	0.005	0.002	0.006	94.5	24.4	
Bus28	33.000		A	0.460	0.078	0.466	98.6	24.5	
			B	0.460	0.078	0.466	98.6	24.5	
			C	0.460	0.078	0.466	98.6	24.5	
Bus30	0.400		A	0.019	0.005	0.019	96.4	84.1	
			B	0.019	0.005	0.019	96.4	84.1	
			C	0.019	0.005	0.019	96.4	84.1	
Bus31	33.000		A	0.441	0.072	0.447	98.7	23.5	
			B	0.441	0.072	0.447	98.7	23.5	
			C	0.441	0.072	0.447	98.7	23.5	
Bus32	33.000		A	0.047	0.013	0.048	96.4	2.5	
			B	0.047	0.013	0.048	96.4	2.5	
			C	0.047	0.013	0.048	96.4	2.5	

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 3
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus34	0.400		A	0.039	0.012	0.041	95.8	176.9	
			B	0.039	0.012	0.041	95.8	176.9	
			C	0.039	0.012	0.041	95.8	176.9	
Bus35	33.000		A	0.008	0.008	0.011	67.8	0.6	
			B	0.008	0.008	0.011	67.8	0.6	
			C	0.008	0.008	0.011	67.8	0.6	
Bus37	0.400		A	0.007	0.013	0.015	48.9	66.3	
			B	0.007	0.013	0.015	48.9	66.3	
			C	0.007	0.013	0.015	48.9	66.3	
Bus38	33.000		A	0.394	0.068	0.400	98.6	21.0	
			B	0.394	0.068	0.400	98.6	21.0	
			C	0.394	0.068	0.400	98.6	21.0	
Bus41	0.400		A	0.027	0.012	0.030	90.9	129.7	
			B	0.027	0.012	0.030	90.9	129.7	
			C	0.027	0.012	0.030	90.9	129.7	
Bus42	33.000		A	0.051	0.012	0.052	97.1	2.7	
			B	0.051	0.012	0.052	97.1	2.7	
			C	0.051	0.012	0.052	97.1	2.7	
Bus43	33.000		A	0.023	0.007	0.024	95.6	1.3	
			B	0.023	0.007	0.024	95.6	1.3	
			C	0.023	0.007	0.024	95.6	1.3	
Bus44	33.000		A	0.023	0.007	0.024	95.6	1.3	
			B	0.023	0.007	0.024	95.6	1.3	
			C	0.023	0.007	0.024	95.6	1.3	
Bus46	0.400		A	0.018	0.004	0.019	97.1	82.1	
			B	0.018	0.004	0.019	97.1	82.1	
			C	0.018	0.004	0.019	97.1	82.1	
Bus47	33.000		A	0.005	0.002	0.005	91.3	0.3	
			B	0.005	0.002	0.005	91.3	0.3	
			C	0.005	0.002	0.005	91.3	0.3	
Bus51	33.000		A	0.005	0.002	0.005	91.3	0.3	
			B	0.005	0.002	0.005	91.3	0.3	
			C	0.005	0.002	0.005	91.3	0.3	
Bus52	0.400		A	0.005	0.002	0.005	93.0	22.1	
			B	0.005	0.002	0.005	93.0	22.1	
			C	0.005	0.002	0.005	93.0	22.1	
Bus53	33.000		A	0.343	0.055	0.348	98.7	18.3	
			B	0.343	0.055	0.348	98.7	18.3	
			C	0.343	0.055	0.348	98.7	18.3	
Bus54	33.000		A	0.343	0.055	0.348	98.7	18.3	
			B	0.343	0.055	0.348	98.7	18.3	
			C	0.343	0.055	0.348	98.7	18.3	
Bus56	0.400		A	0.005	0.002	0.006	94.6	24.4	
			B	0.005	0.002	0.006	94.6	24.4	
			C	0.005	0.002	0.006	94.6	24.4	

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 4
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus57	33.000		A	0.338	0.053	0.342	98.8	18.0	
			B	0.338	0.053	0.342	98.8	18.0	
			C	0.338	0.053	0.342	98.8	18.0	
Bus59	0.400		A	0.027	0.012	0.030	90.9	129.7	
			B	0.027	0.012	0.030	90.9	129.7	
			C	0.027	0.012	0.030	90.9	129.7	
Bus60	33.000		A	0.024	0.012	0.027	89.1	1.4	
			B	0.024	0.012	0.027	89.1	1.4	
			C	0.024	0.012	0.027	89.1	1.4	
Bus62	0.400		A	0.024	0.012	0.027	90.1	116.2	
			B	0.024	0.012	0.027	90.1	116.2	
			C	0.024	0.012	0.027	90.1	116.2	
Bus63	33.000		A	0.286	0.036	0.289	99.2	15.2	
			B	0.286	0.036	0.289	99.2	15.2	
			C	0.286	0.036	0.289	99.2	15.2	
Bus64	33.000		A	0.286	0.036	0.289	99.2	15.2	
			B	0.286	0.036	0.289	99.2	15.2	
			C	0.286	0.036	0.289	99.2	15.2	
Bus66	0.400		A	0.038	0.016	0.041	91.7	180.7	
			B	0.038	0.016	0.041	91.7	180.7	
			C	0.038	0.016	0.041	91.7	180.7	
Bus68	0.400		A	0.023	0.007	0.024	95.9	104.6	
			B	0.023	0.007	0.024	95.9	104.6	
			C	0.023	0.007	0.024	95.9	104.6	
Bus69	33.000		A	0.023	0.008	0.024	95.0	1.3	
			B	0.023	0.008	0.024	95.0	1.3	
			C	0.023	0.008	0.024	95.0	1.3	
Bus70	33.000		A	0.225	0.028	0.227	99.2	11.9	
			B	0.225	0.028	0.227	99.2	11.9	
			C	0.225	0.028	0.227	99.2	11.9	
Bus72	0.400		A	0.039	0.012	0.041	95.8	176.9	
			B	0.039	0.012	0.041	95.8	176.9	
			C	0.039	0.012	0.041	95.8	176.9	
Bus73	33.000		A	0.039	0.015	0.042	93.4	2.2	
			B	0.039	0.015	0.042	93.4	2.2	
			C	0.039	0.015	0.042	93.4	2.2	
Bus75	0.400		A	0.016	0.006	0.017	93.0	73.1	
			B	0.016	0.006	0.017	93.0	73.1	
			C	0.016	0.006	0.017	93.0	73.1	
Bus76	33.000		A	0.023	0.008	0.024	94.6	1.3	
			B	0.023	0.008	0.024	94.6	1.3	
			C	0.023	0.008	0.024	94.6	1.3	
Bus78	0.400		A	0.005	0.004	0.007	79.4	29.1	
			B	0.005	0.004	0.007	79.4	29.1	
			C	0.005	0.004	0.007	79.4	29.1	

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 5
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus79	33.000		A	0.018	0.005	0.018	96.5	1.0	
			B	0.018	0.005	0.018	96.5	1.0	
			C	0.018	0.005	0.018	96.5	1.0	
Bus81	0.400		A	0.017	0.004	0.018	97.2	78.2	
			B	0.017	0.004	0.018	97.2	78.2	
			C	0.017	0.004	0.018	97.2	78.2	
Bus82	33.000		A	0.018	0.005	0.018	96.5	1.0	
			B	0.018	0.005	0.018	96.5	1.0	
			C	0.018	0.005	0.018	96.5	1.0	
Bus83	33.000		A	0.147	0.023	0.149	98.8	7.8	
			B	0.147	0.023	0.149	98.8	7.8	
			C	0.147	0.023	0.149	98.8	7.8	
Bus85	0.400		A	0.018	0.005	0.019	97.0	81.8	
			B	0.018	0.005	0.019	97.0	81.8	
			C	0.018	0.005	0.019	97.0	81.8	
Bus86	33.000		A	0.018	0.005	0.019	96.3	1.0	
			B	0.018	0.005	0.019	96.3	1.0	
			C	0.018	0.005	0.019	96.3	1.0	
Bus87	33.000		A	0.129	0.029	0.132	97.6	6.9	
			B	0.129	0.029	0.132	97.6	6.9	
			C	0.129	0.029	0.132	97.6	6.9	
Bus89	0.400		A	0.015	0.005	0.016	94.4	71.1	
			B	0.015	0.005	0.016	94.4	71.1	
			C	0.015	0.005	0.016	94.4	71.1	
Bus90	33.000		A	0.117	0.040	0.124	94.6	6.5	
			B	0.117	0.040	0.124	94.6	6.5	
			C	0.117	0.040	0.124	94.6	6.5	
Bus92	0.400		A	0.028	0.011	0.030	93.7	132.5	
			B	0.028	0.011	0.030	93.7	132.5	
			C	0.028	0.011	0.030	93.7	132.5	
Bus93	33.000		A	0.088	0.035	0.095	93.1	5.0	
			B	0.088	0.035	0.095	93.1	5.0	
			C	0.088	0.035	0.095	93.1	5.0	
Bus95	0.400		A	0.007	0.005	0.009	85.0	38.3	
			B	0.007	0.005	0.009	85.0	38.3	
			C	0.007	0.005	0.009	85.0	38.3	
Bus96	33.000		A	0.081	0.055	0.098	82.7	5.1	
			B	0.081	0.055	0.098	82.7	5.1	
			C	0.081	0.055	0.098	82.7	5.1	
Bus98	0.400		A	0.019	0.005	0.019	96.4	84.2	
			B	0.019	0.005	0.019	96.4	84.2	
			C	0.019	0.005	0.019	96.4	84.2	
Bus99	33.000		A	0.023	0.055	0.060	39.3	3.1	
			B	0.023	0.055	0.060	39.3	3.1	
			C	0.023	0.055	0.060	39.3	3.1	

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 6
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus101	0.400		A	0.023	0.082	0.085	27.2	363.5	
			B	0.023	0.082	0.085	27.2	363.5	
			C	0.023	0.082	0.085	27.2	363.5	
Bus102	33.000		A	0.023	0.055	0.060	39.3	3.1	
			B	0.023	0.055	0.060	39.3	3.1	
			C	0.023	0.055	0.060	39.3	3.1	
Bus103	33.000		A	0.038	0.014	0.041	93.6	2.2	
			B	0.038	0.014	0.041	93.6	2.2	
			C	0.038	0.014	0.041	93.6	2.2	
Bus105	0.400		A	0.016	0.006	0.017	93.0	73.2	
			B	0.016	0.006	0.017	93.0	73.2	
			C	0.016	0.006	0.017	93.0	73.2	
Bus106	33.000		A	0.023	0.008	0.024	94.7	1.3	
			B	0.023	0.008	0.024	94.7	1.3	
			C	0.023	0.008	0.024	94.7	1.3	
Bus108	0.400		A	0.022	0.007	0.024	95.4	102.9	
			B	0.022	0.007	0.024	95.4	102.9	
			C	0.022	0.007	0.024	95.4	102.9	
Bus113	33.000		A	0.004	0.011	0.011	35.6	0.6	
			B	0.004	0.011	0.011	35.6	0.6	
			C	0.004	0.011	0.011	35.6	0.6	
Bus114	33.000		A	0.023	0.018	0.029	78.4	1.5	
			B	0.023	0.018	0.029	78.4	1.5	
			C	0.023	0.018	0.029	78.4	1.5	
Bus116	0.400		A	0.011	0.004	0.012	92.9	50.2	
			B	0.011	0.004	0.012	92.9	50.2	
			C	0.011	0.004	0.012	92.9	50.2	
Bus119	0.400		A	0.008	0.003	0.008	95.4	36.8	
			B	0.008	0.003	0.008	95.4	36.8	
			C	0.008	0.003	0.008	95.4	36.8	
Bus120	33.000		A	0.008	0.003	0.009	94.0	0.5	
			B	0.008	0.003	0.009	94.0	0.5	
			C	0.008	0.003	0.009	94.0	0.5	
Bus121	33.000		A	0.051	0.028	0.059	87.5	3.1	
			B	0.051	0.028	0.059	87.5	3.1	
			C	0.051	0.028	0.059	87.5	3.1	
Bus124	33.000		A	0.028	0.010	0.030	94.1	1.6	
			B	0.028	0.010	0.030	94.1	1.6	
			C	0.028	0.010	0.030	94.1	1.6	
Bus125	0.400		A	0.028	0.009	0.030	95.0	129.1	
			B	0.028	0.009	0.030	95.0	129.1	
			C	0.028	0.009	0.030	95.0	129.1	
Bus126	33.000		A	0.076	0.037	0.084	90.0	4.4	
			B	0.076	0.037	0.084	90.0	4.4	
			C	0.076	0.037	0.084	90.0	4.4	

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 7
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus127	33.000		A	0.088	0.039	0.096	91.2	5.1	
			B	0.088	0.039	0.096	91.2	5.1	
			C	0.088	0.039	0.096	91.2	5.1	
Bus129	0.400		A	0.012	0.002	0.012	98.0	52.2	
			B	0.012	0.002	0.012	98.0	52.2	
			C	0.012	0.002	0.012	98.0	52.2	
Bus132	33.000		A	0.101	0.044	0.110	91.6	5.8	
			B	0.101	0.044	0.110	91.6	5.8	
			C	0.101	0.044	0.110	91.6	5.8	
Bus133	0.400		A	0.013	0.004	0.013	95.0	58.3	
			B	0.013	0.004	0.013	95.0	58.3	
			C	0.013	0.004	0.013	95.0	58.3	
Bus134	33.000		A	0	0	0	0	0	
			B	0	0	0	0	0	
			C	0	0	0	0	0	
Bus135	33.000		A	0.101	0.044	0.110	91.6	5.8	
			B	0.101	0.044	0.110	91.6	5.8	
			C	0.101	0.044	0.110	91.6	5.8	
Bus138	33.000		A	0.124	0.057	0.137	90.8	7.2	
			B	0.124	0.057	0.137	90.8	7.2	
			C	0.124	0.057	0.137	90.8	7.2	
Bus139	0.400		A	0.024	0.012	0.027	88.7	116.3	
			B	0.024	0.012	0.027	88.7	116.3	
			C	0.024	0.012	0.027	88.7	116.3	
Bus142	33.000		A	0.024	0.008	0.026	94.8	1.3	
			B	0.024	0.008	0.026	94.8	1.3	
			C	0.024	0.008	0.026	94.8	1.3	
Bus143	0.400		A	0.024	0.007	0.025	95.6	110.0	
			B	0.024	0.007	0.025	95.6	110.0	
			C	0.024	0.007	0.025	95.6	110.0	
Bus145	33.000		A	0.220	0.076	0.233	94.5	12.2	
			B	0.220	0.076	0.233	94.5	12.2	
			C	0.220	0.076	0.233	94.5	12.2	
Bus146	33.000		A	0.220	0.079	0.234	94.2	12.3	
			B	0.220	0.079	0.234	94.2	12.3	
			C	0.220	0.079	0.234	94.2	12.3	
Bus148	0.400		A	0.019	0.013	0.023	81.9	100.2	
			B	0.019	0.013	0.023	81.9	100.2	
			C	0.019	0.013	0.023	81.9	100.2	
Bus150	0.400		A	0.005	0.002	0.006	94.5	24.4	
			B	0.005	0.002	0.006	94.5	24.4	
			C	0.005	0.002	0.006	94.5	24.4	
Bus151	33.000		A	0.005	0.002	0.006	92.4	0.3	
			B	0.005	0.002	0.006	92.4	0.3	
			C	0.005	0.002	0.006	92.4	0.3	

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 8
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus152	33.000		A	0.046	0.018	0.049	93.4	2.6	
			B	0.046	0.018	0.049	93.4	2.6	
			C	0.046	0.018	0.049	93.4	2.6	
Bus154	0.400		A	0.002	0.001	0.002	94.9	9.9	
			B	0.002	0.001	0.002	94.9	9.9	
			C	0.002	0.001	0.002	94.9	9.9	
Bus155	33.000		A	0.043	0.016	0.046	93.6	2.4	
			B	0.043	0.016	0.046	93.6	2.4	
			C	0.043	0.016	0.046	93.6	2.4	
Bus157	0.400		A	0.005	0.002	0.006	94.5	24.4	
			B	0.005	0.002	0.006	94.5	24.4	
			C	0.005	0.002	0.006	94.5	24.4	
Bus158	33.000		A	0.038	0.014	0.041	93.7	2.1	
			B	0.038	0.014	0.041	93.7	2.1	
			C	0.038	0.014	0.041	93.7	2.1	
Bus159	33.000		A	0.038	0.014	0.041	93.7	2.1	
			B	0.038	0.014	0.041	93.7	2.1	
			C	0.038	0.014	0.041	93.7	2.1	
Bus160	33.000		A	0.038	0.014	0.041	93.7	2.1	
			B	0.038	0.014	0.041	93.7	2.1	
			C	0.038	0.014	0.041	93.7	2.1	
Bus162	0.400		A	0.023	0.007	0.024	95.5	103.6	
			B	0.023	0.007	0.024	95.5	103.6	
			C	0.023	0.007	0.024	95.5	103.6	
Bus163	33.000		A	0.015	0.006	0.016	92.2	0.9	
			B	0.015	0.006	0.016	92.2	0.9	
			C	0.015	0.006	0.016	92.2	0.9	
Bus165	0.400		A	0.010	0.004	0.011	94.0	47.3	
			B	0.010	0.004	0.011	94.0	47.3	
			C	0.010	0.004	0.011	94.0	47.3	
Bus166	33.000		A	0.005	0.002	0.005	90.8	0.3	
			B	0.005	0.002	0.005	90.8	0.3	
			C	0.005	0.002	0.005	90.8	0.3	
Bus167	33.000		A	0.005	0.002	0.005	90.8	0.3	
			B	0.005	0.002	0.005	90.8	0.3	
			C	0.005	0.002	0.005	90.8	0.3	
Bus168	33.000		A	0.005	0.002	0.005	90.8	0.3	
			B	0.005	0.002	0.005	90.8	0.3	
			C	0.005	0.002	0.005	90.8	0.3	
Bus170	0.400		A	0.005	0.002	0.005	92.5	22.2	
			B	0.005	0.002	0.005	92.5	22.2	
			C	0.005	0.002	0.005	92.5	22.2	
Bus171	33.000		A	0.005	0.002	0.005	90.8	0.3	
			B	0.005	0.002	0.005	90.8	0.3	
			C	0.005	0.002	0.005	90.8	0.3	

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 9
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus172	33.000		A	0.150	0.059	0.161	93.1	8.5	
			B	0.150	0.059	0.161	93.1	8.5	
			C	0.150	0.059	0.161	93.1	8.5	
Bus173	33.000		A	0.150	0.059	0.161	93.1	8.5	
			B	0.150	0.059	0.161	93.1	8.5	
			C	0.150	0.059	0.161	93.1	8.5	
Bus175	0.400		A	0.018	0.006	0.019	95.0	82.2	
			B	0.018	0.006	0.019	95.0	82.2	
			C	0.018	0.006	0.019	95.0	82.2	
Bus176	33.000		A	0.132	0.053	0.142	92.9	7.5	
			B	0.132	0.053	0.142	92.9	7.5	
			C	0.132	0.053	0.142	92.9	7.5	
Bus178	0.400		A	0.013	0.004	0.014	94.8	61.7	
			B	0.013	0.004	0.014	94.8	61.7	
			C	0.013	0.004	0.014	94.8	61.7	
Bus179	33.000		A	0.014	0.005	0.014	94.1	0.8	
			B	0.014	0.005	0.014	94.1	0.8	
			C	0.014	0.005	0.014	94.1	0.8	
Bus180	33.000		A	0.118	0.048	0.128	92.8	6.7	
			B	0.118	0.048	0.128	92.8	6.7	
			C	0.118	0.048	0.128	92.8	6.7	
Bus181	33.000		A	0.025	0.011	0.027	91.9	1.4	
			B	0.025	0.011	0.027	91.9	1.4	
			C	0.025	0.011	0.027	91.9	1.4	
Bus183	0.400		A	0.016	0.006	0.017	93.3	73.9	
			B	0.016	0.006	0.017	93.3	73.9	
			C	0.016	0.006	0.017	93.3	73.9	
Bus184	33.000		A	0.009	0.004	0.010	91.3	0.5	
			B	0.009	0.004	0.010	91.3	0.5	
			C	0.009	0.004	0.010	91.3	0.5	
Bus185	33.000		A	0.009	0.004	0.010	91.3	0.5	
			B	0.009	0.004	0.010	91.3	0.5	
			C	0.009	0.004	0.010	91.3	0.5	
Bus188	0.400		A	0.005	0.002	0.006	94.5	24.4	
			B	0.005	0.002	0.006	94.5	24.4	
			C	0.005	0.002	0.006	94.5	24.4	
Bus189	33.000		A	0.004	0.002	0.004	89.7	0.2	
			B	0.004	0.002	0.004	89.7	0.2	
			C	0.004	0.002	0.004	89.7	0.2	
Bus191	0.400		A	0.004	0.001	0.004	92.9	17.6	
			B	0.004	0.001	0.004	92.9	17.6	
			C	0.004	0.001	0.004	92.9	17.6	
Bus192	33.000		A	0.004	0.002	0.004	89.7	0.2	
			B	0.004	0.002	0.004	89.7	0.2	
			C	0.004	0.002	0.004	89.7	0.2	

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 10
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus193	33.000		A	0	0	0	0	0	
			B	0	0	0	0	0	
			C	0	0	0	0	0	
Bus194	33.000		A	0.074	0.030	0.080	92.7	4.2	
			B	0.074	0.030	0.080	92.7	4.2	
			C	0.074	0.030	0.080	92.7	4.2	
Bus195	33.000		A	0.074	0.030	0.080	92.7	4.2	
			B	0.074	0.030	0.080	92.7	4.2	
			C	0.074	0.030	0.080	92.7	4.2	
Bus196	33.000		A	0.074	0.030	0.080	92.7	4.2	
			B	0.074	0.030	0.080	92.7	4.2	
			C	0.074	0.030	0.080	92.7	4.2	
Bus197	33.000		A	0.074	0.030	0.080	92.7	4.2	
			B	0.074	0.030	0.080	92.7	4.2	
			C	0.074	0.030	0.080	92.7	4.2	
Bus198	33.000		A	0.038	0.018	0.042	90.7	2.2	
			B	0.038	0.018	0.042	90.7	2.2	
			C	0.038	0.018	0.042	90.7	2.2	
Bus200	0.400		A	0.038	0.016	0.041	91.7	180.7	
			B	0.038	0.016	0.041	91.7	180.7	
			C	0.038	0.016	0.041	91.7	180.7	
Bus201	33.000		A	0.005	0.002	0.005	89.9	0.3	
			B	0.005	0.002	0.005	89.9	0.3	
			C	0.005	0.002	0.005	89.9	0.3	
Bus203	0.400		A	0.005	0.002	0.005	92.5	22.2	
			B	0.005	0.002	0.005	92.5	22.2	
			C	0.005	0.002	0.005	92.5	22.2	
Bus204	33.000		A	0	0	0	0	0	
			B	0	0	0	0	0	
			C	0	0	0	0	0	
Bus205	33.000		A	0	0	0	0	0	
			B	0	0	0	0	0	
			C	0	0	0	0	0	
Bus206	33.000		A	0	0	0	0	0	
			B	0	0	0	0	0	
			C	0	0	0	0	0	
Bus208	0.400		A	0.019	0.006	0.020	95.3	85.9	
			B	0.019	0.006	0.020	95.3	85.9	
			C	0.019	0.006	0.020	95.3	85.9	
Bus209	33.000		A	0.036	0.012	0.038	94.6	2.0	
			B	0.036	0.012	0.038	94.6	2.0	
			C	0.036	0.012	0.038	94.6	2.0	
Bus211	0.400		A	0.031	0.009	0.032	96.0	140.4	
			B	0.031	0.009	0.032	96.0	140.4	
			C	0.031	0.009	0.032	96.0	140.4	

Project:
Location:
Contract:
Engineer:
Filename: unbalance~

ETAP
12.6.0H

Study Case: ULF

Page: 11
Date: 11-26-2017
SN:
Revision: Base
Config.: Normal

Bus			Bus Load						
ID	kV	Rated Amp	Phase	MW	Mvar	MVA	% PF	Amp	% Loading
Bus212	0.400		A	0.127	0.061	0.141	90.0	610.7	
			B	0.127	0.061	0.141	90.0	610.7	
			C	0.127	0.061	0.141	90.0	610.7	
Bus213	33.000		A	0.124	0.057	0.137	90.8	7.2	
			B	0.124	0.057	0.137	90.8	7.2	
			C	0.124	0.057	0.137	90.8	7.2	

* Indicates operating load of a bus exceeds the bus critical limit (100.00 % times the continuous rating).