CENTRAL MAINE POWER COMPANY
RESPONSE TO ORAL DATA REQUEST NO. 3
DOCKET No. 2008-255

December 23, 2008

ODR-03-41, Supplemental Response

Q. Please provide the currents provided by RLC for the purposes of EMF modeling for each line.

A. The attached file summarizes the load currents used in the modeling of annual average and peak magnetic fields for sections 16 and 17, which were not available at the time of the original request.

Response Prepared By:
Vikas Anant, Ph.D.
Exponent

Response Submitted By:
William H. Bailey, Ph.D.
Principal Scientist
Exponent

Attachment(s):
1. MPRP Load Currents for Sections 16 and 17.xls

Segment 16 - Section 377 - Structure #161 (ROW X-Section N5-16-3)						Edge of ROW [ft]		Conductor @ 25°C [ft]						Shield Wire @ 25°C [ft]				Loads					
								1		2		3		1		2		Average			Peak		
Conductor type	Conductor diameter [inches]	Number of conductors	Conductor spacing [inches]	SW type	SW diameter [in]	Left	Right	X	Y	X	Y	X	Y	X	Y	X	Y	MW	Mvar	line current [A]	MW	Mvar	line current [A]
900kcmil, ACSR, 54/7, "Canary"	1.162	6	18	7No8 AW	0.385	285	240	264	32	258	56	264	81	266	104	304	104	239.1	-25	#REF!	-264.3	20.6	#REF!
900kcmil, ACSR, 54/7, "Canary"	1.162	6	18	7No8 AW	0.385	450	75	435	32	435	82	435	57	440	104	-	-	234.9	-23.6	#REF!	-262.8	19.5	#REF!
336.4kcmil, ACSR, 26/7, "Linnet"	0.72	3	n/a	260.2 kcmil	0.642	450	75	465	82	465	32	465	57	-	-	460	104	14.3	-2.49	#REF!	39	-5.5	#REF!
																				#REF!			#REF!

Segment 16 - Section 377 - Structure #164 (ROW X-Section N5-16-4)						Edge of ROW [ft]		Conductor @ 25°C [ft]						Shield Wire @ 25°C [ft]				Loads					
								1		2		3		1		2		Average			Peak		
Conductor type	Conductor diameter [inches]	Number of conductors	Conductor spacing [inches]	SW type	SW diameter [in]	Left	Right	X	Y	X	Y	X	Y	X	Y	X	Y	MW	Mvar	line current [A]	MW	Mvar	line current [A]
900kcmil, ACSR, 54/7, "Canary"	1.162	6	18	7No8 AW	0.385	350	175	327.75	150	319.8	175	327.75	201	319.8	225	380.25	225	239.1	-25	#REF!	-264.3	20.6	#REF!
900kcmil, ACSR, 54/7, "Canary"	1.162	6	18	7No8 AW	0.385	450	75	427.75	150	427.75	201	419.75	175	419.75	225	-	-	234.9	-23.6	#REF!	-262.8	19.5	#REF!
336.4kcmil, ACSR, 26/7, "Linnet"	0.72	3	n/a	7No8 AW	0.385	450	75	480.25	175	472.25	201	472.25	150	-	-	480.25	225	14.3	-2.49	#REF!	39	-5.5	#REF!
																				#REF!			#REF!

CENTRAL MAINE POWER COMPANY
RESPONSE TO ORAL DATA REQUEST NO. 3
DOCKET No. 2008-255

December 2, 2008

ODR-03-41

Q. Please provide the currents provided by RLC for the purposes of EMF modeling for each line.

A. The attached file summarizes the load currents used in the modeling of annual average and peak magnetic fields.

Response Prepared By:
Vikas Anant, Ph.D.
Exponent

Response Submitted By:
William H. Bailey, Ph.D.
Principal Scientist
Exponent

Attachment(s):
1. MPRP Load Currents.xls

Section ID	1A	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	44.1	-0.2	221	-67.8	-9.1	343
Section 84	115	31.5	-0.7	158	-63.4	0.4	318

Section ID	1B	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	44.1	-0.2	221	-67.8	-9.1	343
Section 84	115	31.5	-0.7	158	-63.4	0.4	318

Section ID	1C	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	44.1	-0.2	221	-67.8	-9.1	343
Section 84	115	31.5	-0.7	158	-63.4	0.4	318

Section ID	2A	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	44.1	-0.2	221	-67.8	-9.1	343
Section 84	115	31.5	-0.7	158	-63.4	0.4	318

Section ID	2B	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	44.1	-0.2	221	-67.8	-9.1	343
Section 84	115	31.5	-0.7	158	-63.4	0.4	318

Section ID	3A	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	44.1	-0.2	221	-67.8	-9.1	343
Section 84	115	31.5	-0.7	158	-63.4	0.4	318

Section ID	3B	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	44.1	-0.2	221	-67.8	-9.1	343
Section 84	115	31.5	-0.7	158	-63.4	0.4	318

Section ID	4	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 102	34.5	10.3	5	192	13.7	6.6	254

Section ID	5	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Distribution 620D4	12.5	1.7	1.1	94	3.3	2.1	181
Section 104	34.5	13.4	6.4	249	17.9	8.5	332
Section 102	34.5	10.3	5	192	13.7	6.6	254

Section ID	6	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 250	115	94.9	-9.9	479	113.7	-9.1	573
Section 197	115	85.7	-13.5	436	88.9	-23.8	462

Section ID	7	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 250	115	94.9	-9.9	479	113.7	-9.1	573
Section 197	115	85.7	-13.5	436	88.9	-23.8	462

Section ID	8	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 250	115	94.9	-9.9	479	113.7	-9.1	573
Section 140	115	112.9	-3.5	567	147.6	9.8	743

Section ID	9	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 250	115	94.9	-9.9	479	113.7	-9.1	573
Section 140	115	112.9	-3.5	567	147.6	9.8	743
Section 237	115	-34	14.5	186	-37.2	-2.3	187
Section 113	34.5	4.6	-3	92	6.1	-4	122

Section ID	13A	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 212	115	6.7	6.4	47	104.5	-5	525
Section 41	34.5	4.8	1.8	86	6.5	2.4	116

Section ID	13B	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 212	115	6.7	6.4	47	104.5	-5	525
Section 41	34.5	4.8	1.8	86	6.5	2.4	116

Section ID	13C	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 212	115	6.7	6.4	47	104.5	-5	525

Section 41	34.5	4.8	1.8	86	6.5	2.4	116

Section ID	**14**	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 212	115	6.7	6.4	47	104.5	-5	525
Section 41	34.5	9.7	3.6	173	12.9	4.7	230

Section ID	**15**	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 212	115	6.7	6.4	47	104.5	-5	525
Section 41	34.5	9.7	3.6	173	12.9	4.7	230

Section ID	**16**	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 212	115	6.7	6.4	47	104.5	-5	525
Section 41	34.5	9.7	3.6	173	12.9	4.7	230

Section ID	**17**	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 167	115	50.1	-6.1	253	131.7	8.5	663
Section 166	115	20.5	-6.8	108	101.8	-1.8	511

Section ID	**18A**	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	50.2	-15	263	55	-11.6	282
Section 66	115	-34.7	10.8	182	-92.2	21.3	475
Distribution 812D1	12.5	1.8	1.1	98	3.2	2	175

Section ID	**18B**	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	50.2	-15	263	55	-11.6	282
Section 66	115	-34.7	10.8	182	-92.2	21.3	475

Section ID	**19**	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	50.2	-15	263	55	-11.6	282

Section ID	**20**	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 67	115	50.2	-15	263	55	-11.6	282

Section ID	21	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 388	345	852.5	-4.5	1427	1049.2	185.3	1783

Section ID	22	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 388	345	852.5	-4.5	1427	1049.2	185.3	1783

Section ID	23A	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 388	345	852.5	-4.5	1427	1049.2	185.3	1783

Section ID	23B	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 388	345	852.5	-4.5	1427	1049.2	185.3	1783

Section ID	24	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 203	115	28	-3.2	141	92	-0.9	462

Section ID	25	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 229	115	62.2	20.2	328	-119.5	-22.5	610

Section ID	26	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 200	115	101.7	-12	514	101.7	-12	514

Section ID	27A	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 220	115	112.5	-10.3	567	167.1	23	847
Section 219	115	114.3	-10.6	576	169.5	-9.6	852

Section ID	27B	Loads					
		Average			Peak		
Circuit	Voltage	MW	Mvar	line current [A]	MW	Mvar	line current [A]
Section 220	115	112.5	-10.3	567	167.1	23	847
Section 219	115	114.3	-10.6	576	169.5	-9.6	852