



WATKINS GLEN SOLAR ENERGY CENTER ELECTRIC AND MAGNETIC FIELD (EMF) CALCULATION

Revision 1

PRELIMINARY – NOT FOR CONSTRUCTION

Project No.: 13666-051

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ISSUE SUMMARY AND APPROVAL PAGE

This is to certify that this Electric and Magnetic Field (EMF) Calculation has been prepared, reviewed and approved in accordance with Sargent & Lundy's Standard Operating Procedure SOP-0405, which is based on ANSI/ISO/ASSQC Q9001 Quality Management Systems.

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12/21/2020

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EXECUTIVE SUMMARY

NextEra Energy Resources (NEER) (Owner) has requested Sargent & Lundy, L.L.C. (S&L) to provide engineering services for a 115kV transmission line tap line associated with the proposed Watkins Glen Solar Energy Center. The project is located in Schuyler County, New York; the line is less than 500 ft. The 115kV transmission line has one (1) cross section, as shown in the report below. The 34.5 kV collection cable maximum fields will be generated near the proposed collection substation and will have one (1) cross section.

As part of the deliverables, S&L will determine the electric and magnetic fields (EMF) for the Winter Normal ratings per the New York Independent System Operator (NYISO) Tie-line Rating Report. The calculation will be used to determine the maximum electric field (kV/m) and magnetic field (mG) within and at the edge of the right-of-way (ROW) for the transmission line and underground collection cross sections.

1.0 PURPOSE AND SCOPE

1.1 DESCRIPTION

The purpose of this calculation is to determine the electric and magnetic fields (EMF) for the ratings listed below and calculated per the New York Independent System Operator (NYISO) Tie-line Rating Report.

1.2 ELECTRIC AND MAGNETIC FIELD GUIDELINES

New York State Public Service Commission (NYPSC) set forth in Opinion and Order Determining Health and Safety Issues, Imposing Operating Conditions, and Authorizing, in Case 26520, Operation Pursuant to those Conditions No. 78-13 and Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities, NYPSC Cases 26529 and 26559, sets the guidance for electric and magnetic fields, respectively.

These opinions and cases set forth the requirement of the minimum electric and magnetic fields at the edge of the ROW. The electric fields strength by the proposed transmission line will not be greater than 1.6 kV/m at the edge of the ROW and measured, one meter (3.28 ft) above ground level, with the line at the rated voltage. The magnetic field strength by the proposed transmission line will not be greater than 200 mG at the edge of the ROW, measured at one meter (3.28 ft) above grade. The limits for the electric and magnetic field strength will adhere to the requirements set forth by the NYPSC [1]. The determination of the phase currents will be based on the Winter Normal rating from the NYISO Tie-line Rating Report. Finally, the conductor height will be calculated under normal conductor temperature (95°C).

2.0 DESIGN INPUTS

2.1 UNVERIFIED INPUTS

Table 1 - PROPOSED LINE CONDUCTOR PROPERTIES

Properties	Conductor	Overhead Shield Wire (OHSW)
Type	ACSR	EHS STEEL
Size	795 kcmil	3/8"
Stranding	26/7	7-Strand
Diameter (in)	1.107	.36
Conductor Cross Sectional Area (in ²)	0.7263	N/A
Weight (lbs/ft)	1.093	0.273
Rated Tensile Strength (lbs)	31,500	15,400
Sub-conductor Horizontal Spacing (in)	N/A	N/A
Resistance, DC, 20°C (Ω/1000 ft)	.0214	N/A
Resistance, AC, 75°C (Ω/1000 ft)	.0263	N/A

*Properties from General Cable

Table 2 - PROPOSED LINE UNDERGROUND CABLE PROPERTIES

Properties	Conductor
Type	XLPE
Size	1250 KCMIL
Stranding	N/A
Diameter (in)	2.458
Conductor Cross Sectional Area (in ²)	0.98186
Weight (lbs/ft)	~2.7

*Properties from General Cable

Table 3 - PROPOSED LINE RATING OUTPUT SUMMARY

Case	Rating Condition	Thermal Rating (Amperes)
1	NYISO – Winter – Normal	670 ¹
2	NYISO – Winter – STE	1000 (estimated)
3	NYISO – Summer – Normal	540 ¹
4	NYISO – Summer – STE	1000 (estimated)
5	Underground Cable – 1250 kcmil	353

1) Values provided by NYISO Gold Book

Soil Conditions:

The geotechnical resistivity provided by the geotechnical report was calculated to be 82 $\Omega \cdot m$. The calculation utilized a conservative value of 100 $\Omega \cdot m$. The noted ground resistivity was then converted into the required ground conductivity input value as follows:

The inputs to the Bonneville Power Authority (BPA) program (version 3.1) require the ground conductivity to be entered (mmhos/m = mS/m). Therefore, the reciprocal of the ground resistivity of 100 $\Omega \cdot m$ = the ground conductivity of 10.0 mS/m

Electric Field Shielding

Shield from objects was not considered as part of this calculation.

Conductor Phasing

Conductor Phasing for the typical steel monopole tangent structure, conductors A, B, and C are assumed to be on the top arm, middle arm, and lower arm, respectively. It is assumed that phasing will produce the highest electric and magnetic fields.

Conductor Midspan Height

For proposed lines, the conductor midspan height was assumed to be at worst case sag with conductor at a temperature of 203°F (95°C). For existing lines, the conductor midspan height was assumed to be at a minimum NESC clearance to ground.

SW Midspan Height

Shield wire midspan height was assumed to be at 75% of the conductor sag at average ambient temperature (49°F).

Ground Elevation

The ground elevation is less than 1000 ft and will be inputted as 0 ft based on the recommendation of the BPA program.

Existing Conductor Configuration

There are no existing cross sections for the existing NYSEG 115 kV transmission line. The minimum clearance to ground for the 115 kV transmission lines is 25 ft.

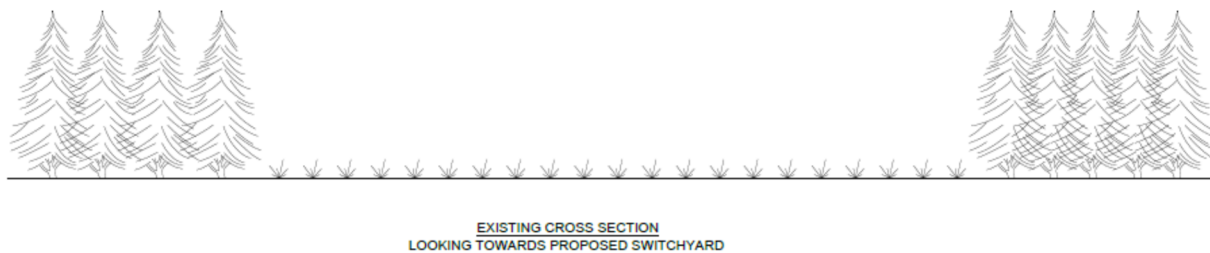


Figure 1 - EXISTING CONFIGURATION

Cross Section 1

The proposed cross section consists of the 115kV transmission lines. The ROW width is 150 ft.

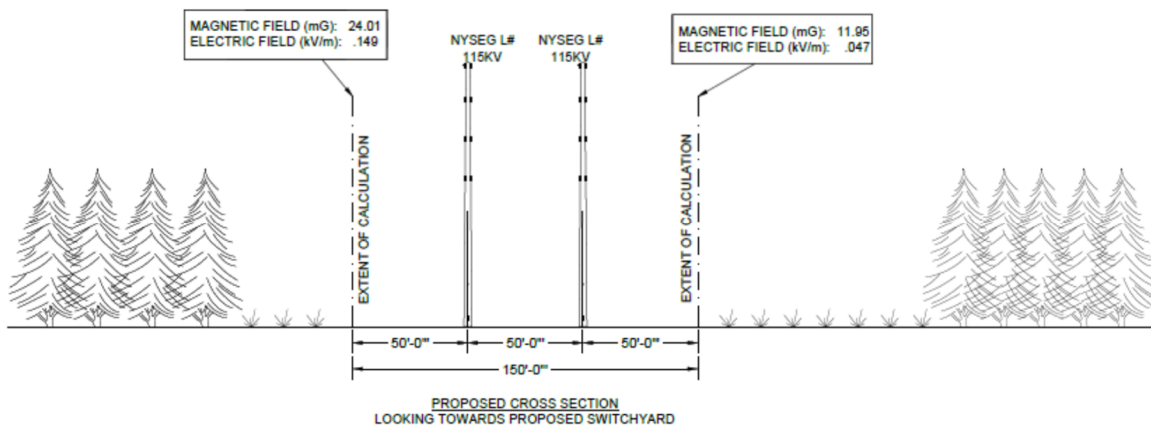


Figure 2 - PROPOSED CROSS SECTION 1

Cross Section 2

The proposed cross section consists of two (2) 34.5 kV underground cables for the collection system. The ROW width is 25 ft.

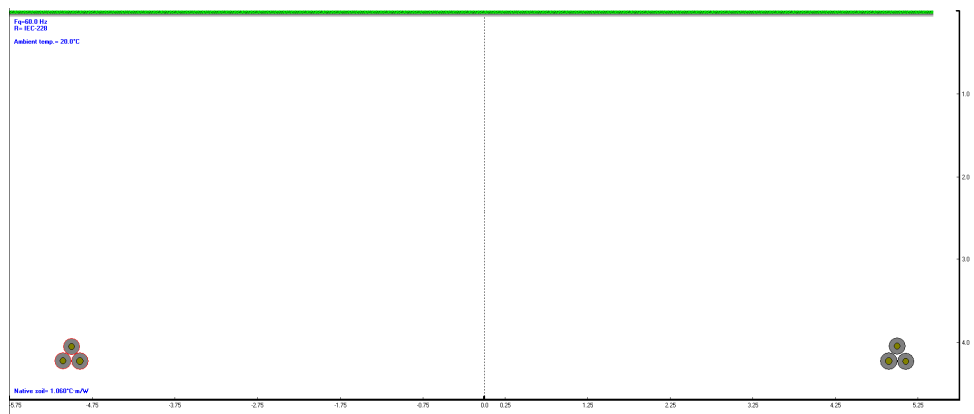


Figure 3 - PROPOSED CROSS SECTION 2 – UNDERGROUND CABLES

Cross Section 3

The proposed cross section consists a single 34.5 kV underground cable crossing a road for the collection system. The ROW width is 25 ft.

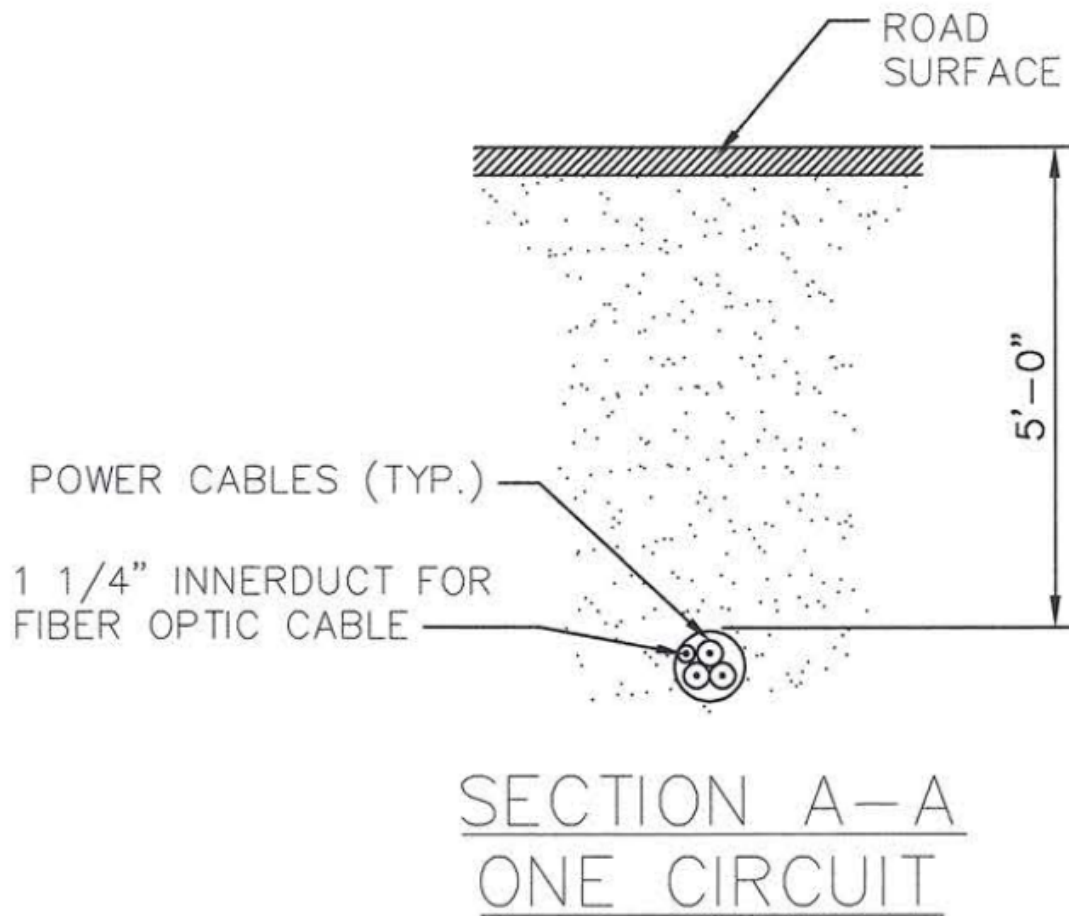


Figure 4 - PROPOSED CROSS SECTION 3 – UNDERGROUND CABLE UNDER A ROAD CROSSING

Cross Section 4

The proposed cross section consists a single 34.5 kV underground cable crossing a pipeline for the collection system. The ROW width is 25 ft. The project team has not received any

information regarding actual pipeline depths and utilized the road crossing depth as a conservative approach.

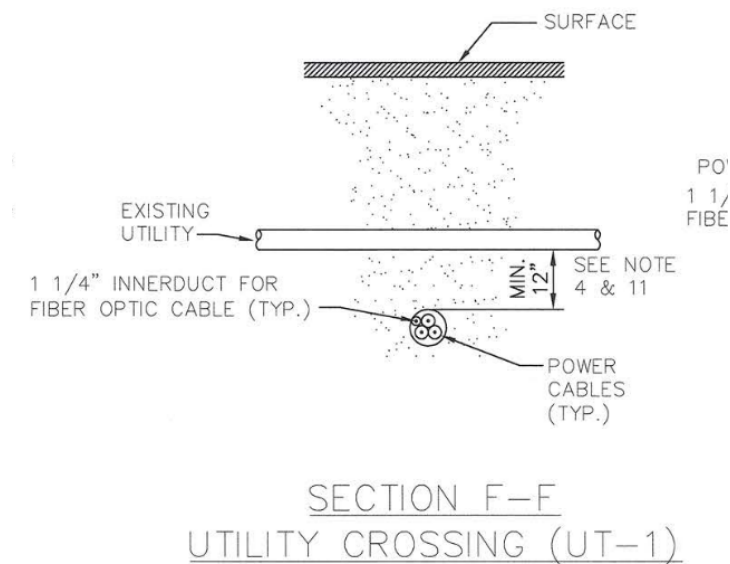


Figure 4 - PROPOSED CROSS SECTION 3 – UNDERGROUND CABLE UNDER A PIPELINE CROSSING



Figure 4 – PROPOSED SITE PLAN

3.0 RESULTS

4.1 EMF RESULTS TABLE

The EMF results shown are for the proposed 150' ROW by NextEra Energy Resources (NEER).

Table 4 - EMF RESULTS

Case Designation	EMF at Edge of ROW	NYPSC Criteria at Edge of ROW
Electric Field (kV/m)		
Existing ROW Cross Section 1	n/a	1.6 kV/m
Proposed ROW Cross Section 1 – Winter Normal	.045	1.6 kV/m
Proposed ROW Cross Section 1 – Winter STE	.045	1.6 kV/m
Proposed ROW Cross Section 1 – Summer Normal	.045	1.6 kV/m
Proposed ROW Cross Section 1 – Summer STE	.045	1.6 kV/m
Proposed Row Cross Section 2 -Maximum Load	N/A	N/A
Proposed Row Cross Section 3 -Maximum Load	N/A	N/A
Proposed Row Cross Section 4 -Maximum Load	N/A	N/A
Magnetic Field (mG)		
Existing ROW Cross Section 1	n/a	200 mG
Proposed ROW Cross Section 1 – Winter Normal	46.76	200 mG
Proposed ROW Cross Section 1 – Winter STE	69.8	200 mG
Proposed ROW Cross Section 1 – Summer Normal	37.69	200 mG
Proposed ROW Cross Section 1 – Summer STE	69.8	200 mG
Proposed ROW Cross Section 2 – Maximum Load	8.35	200 mG
Proposed ROW Cross Section 3 – Maximum Load	2.97	200 mG
Proposed ROW Cross Section 4 – Maximum Load	2.97	200 mG

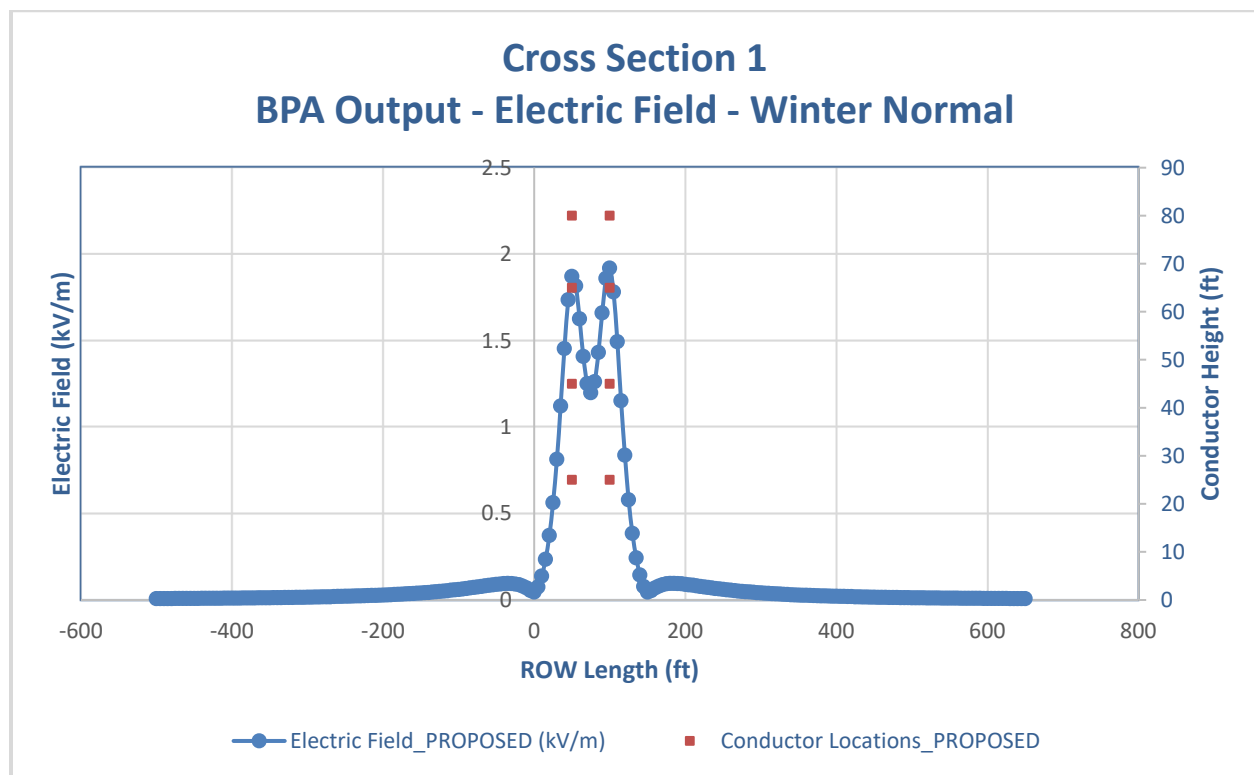
In conclusion, the results of the study show that the calculated electric and magnetic fields are acceptable when compared to the electric fields requirement of 1.6 kV/m, one meter (3.28 ft.) above ground level, and the magnetic field strength requirement is 200 mG, measured at one meter (3.28 ft.) above grade, at the existing NYSEG and proposed Watkins Glen Solar Energy Center transmission lines edge of ROW.

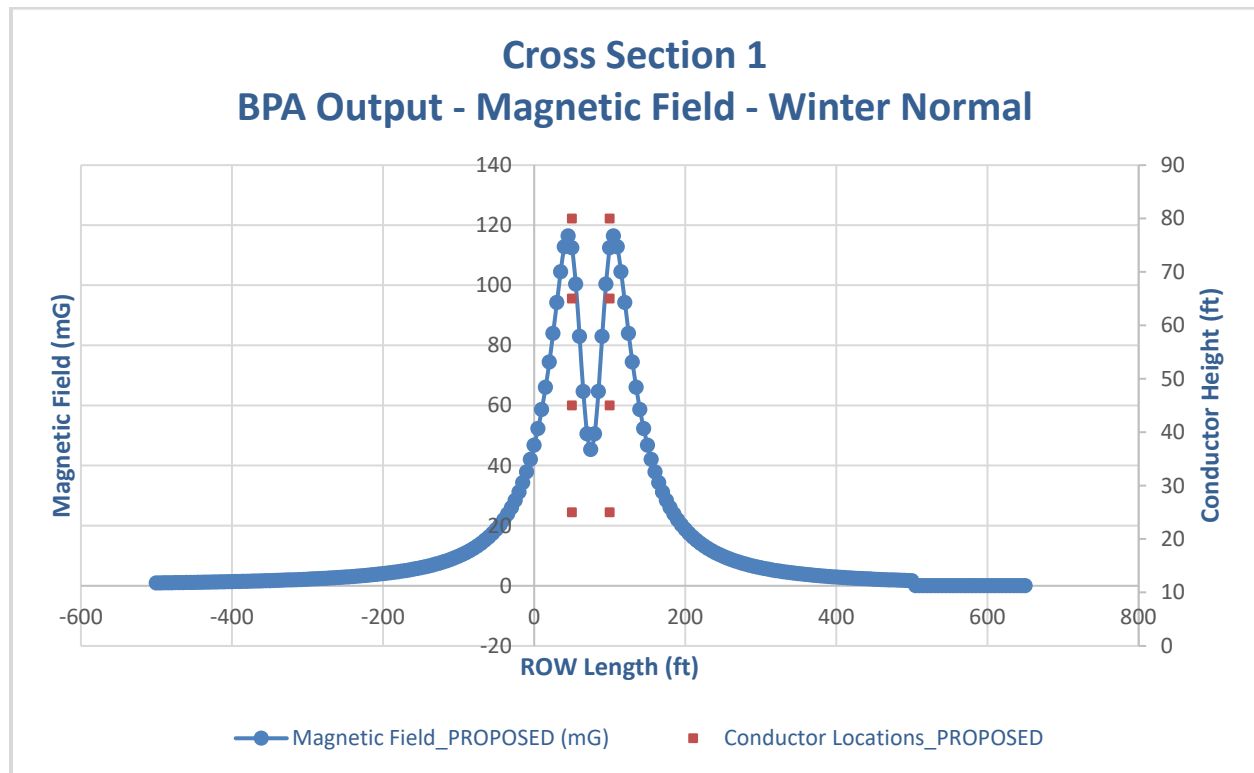
See Appendix A for the inputs and results of the (BPA) Corona and Field Effects computer programs.

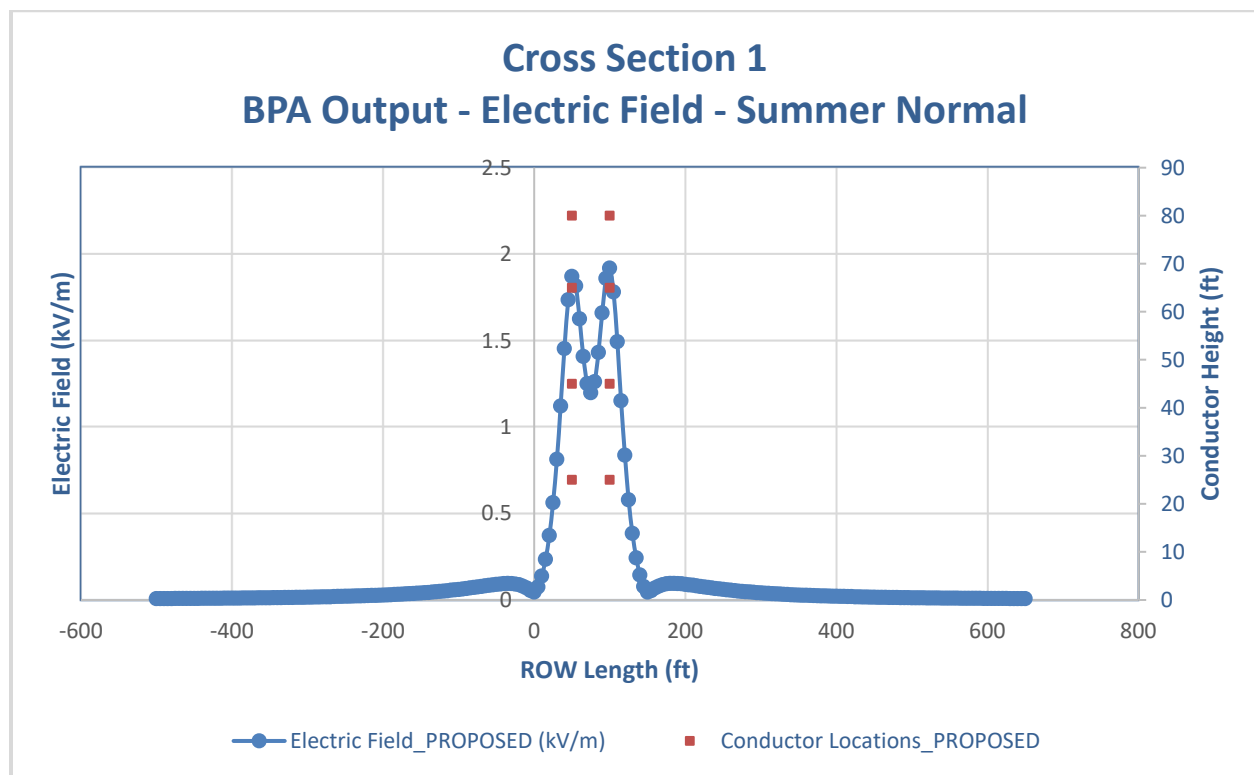
Finally, Stipulation 35 – Section (e) – the study to evaluate potential induced voltages on Project Components located in proximity to high voltage electrical transmission facilities cannot be determined at this stage. The substation perimeter fence will be grounding in accordance to Institute of Electrical and Electronic Engineers (IEEE) standards and the design drawings. Adjacent fencing is not proposed at this time. Should fencing outside of the substation perimeter fence be required applicable codes and standards associated with the transmission line will evala.

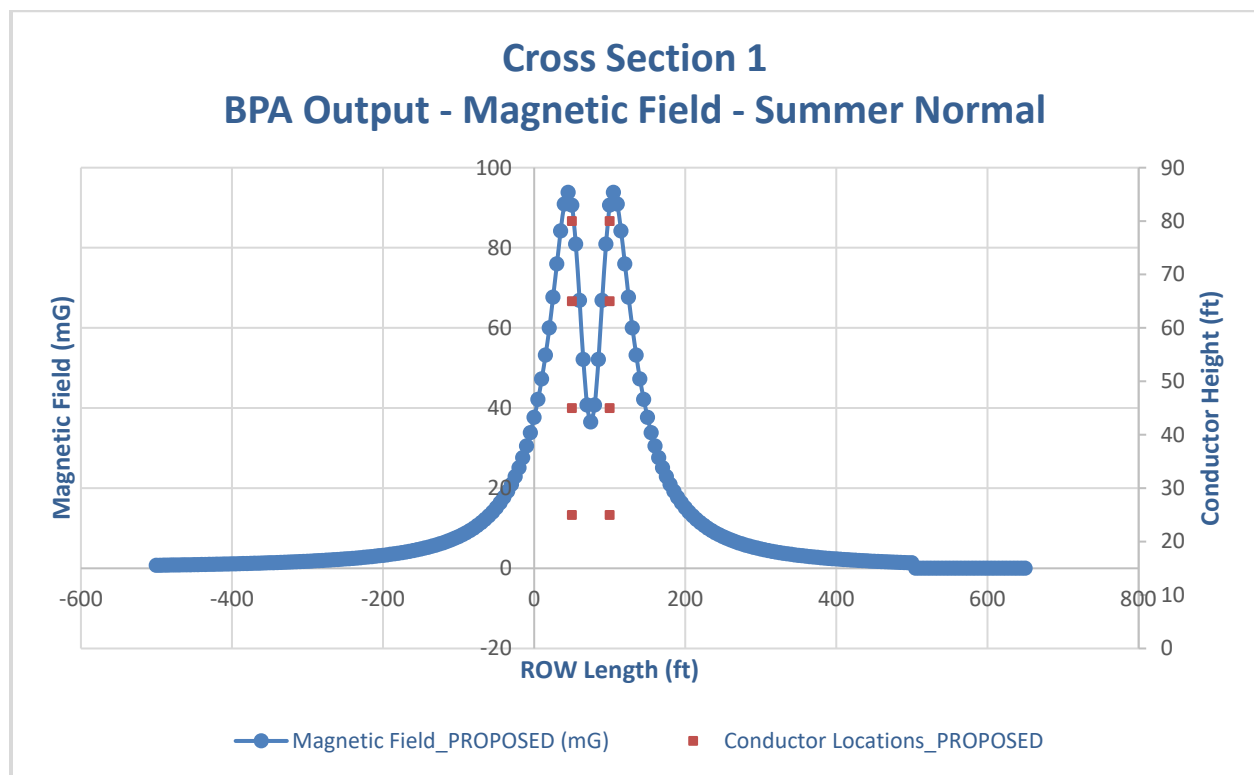
4.2 EMF PLOTS

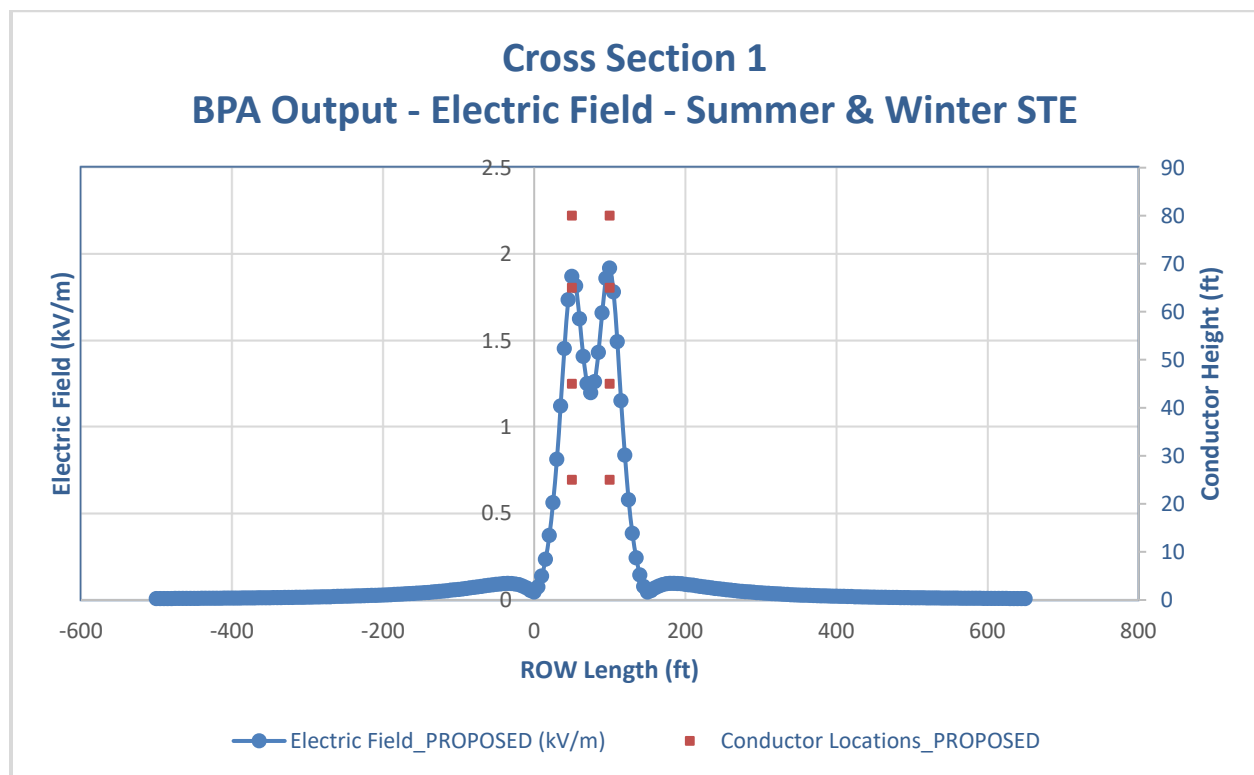
Cross Section 1

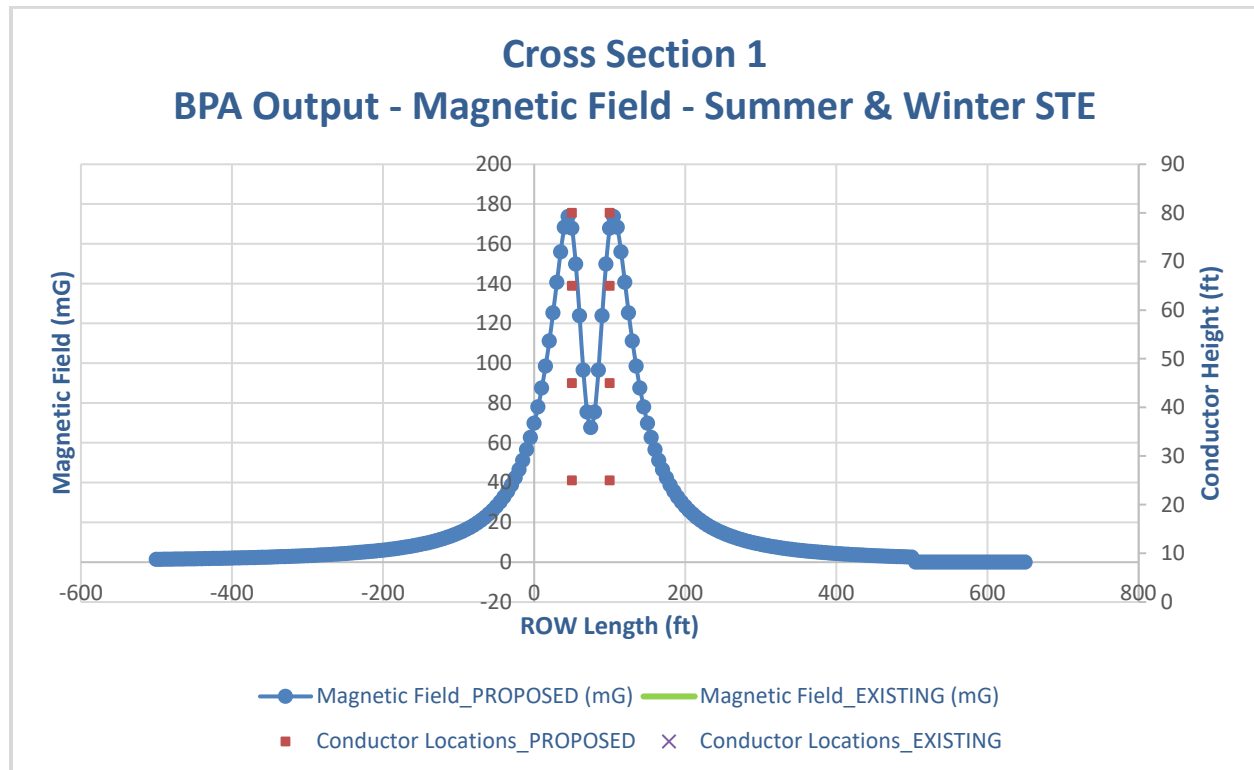




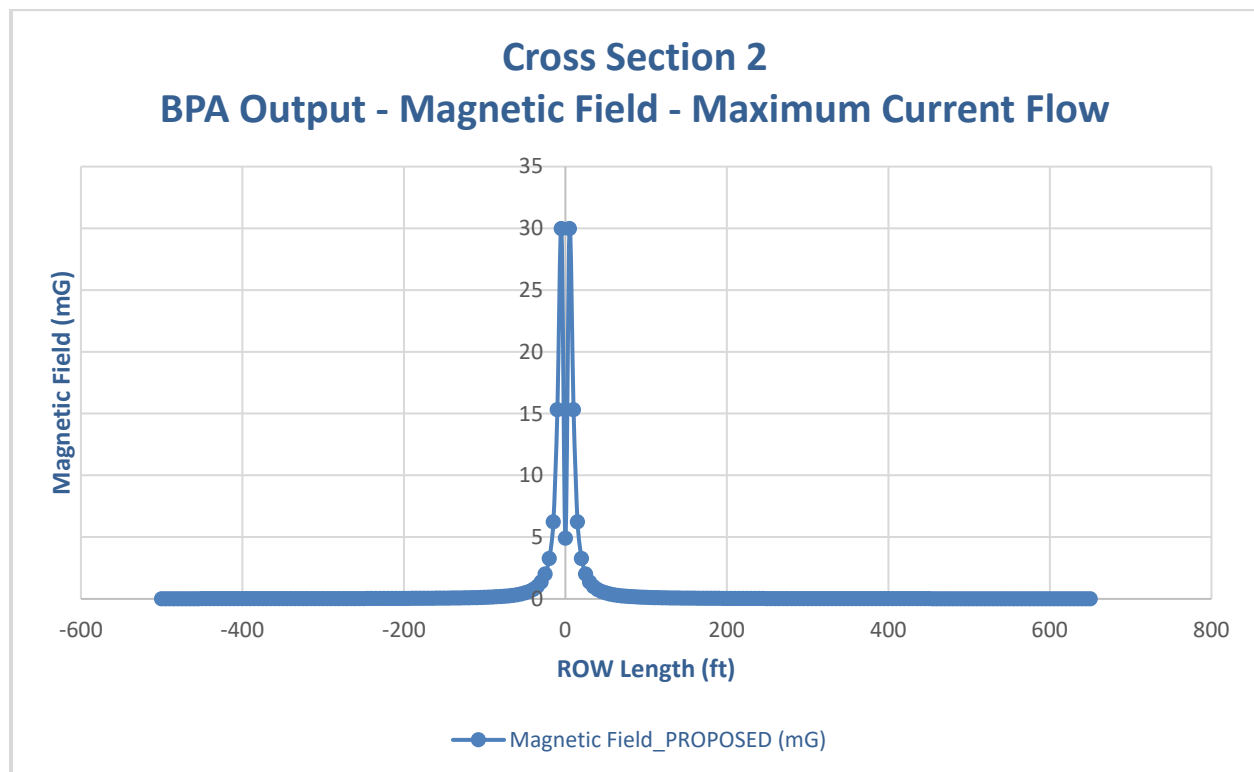




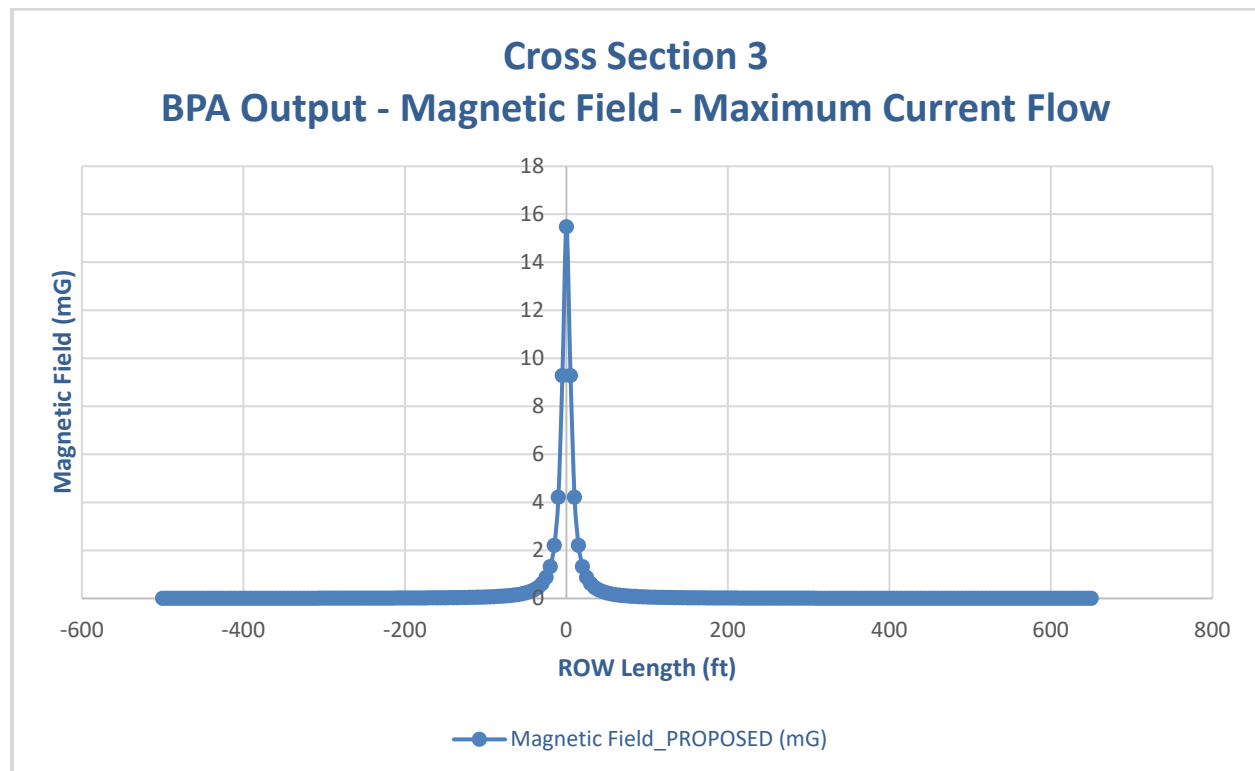




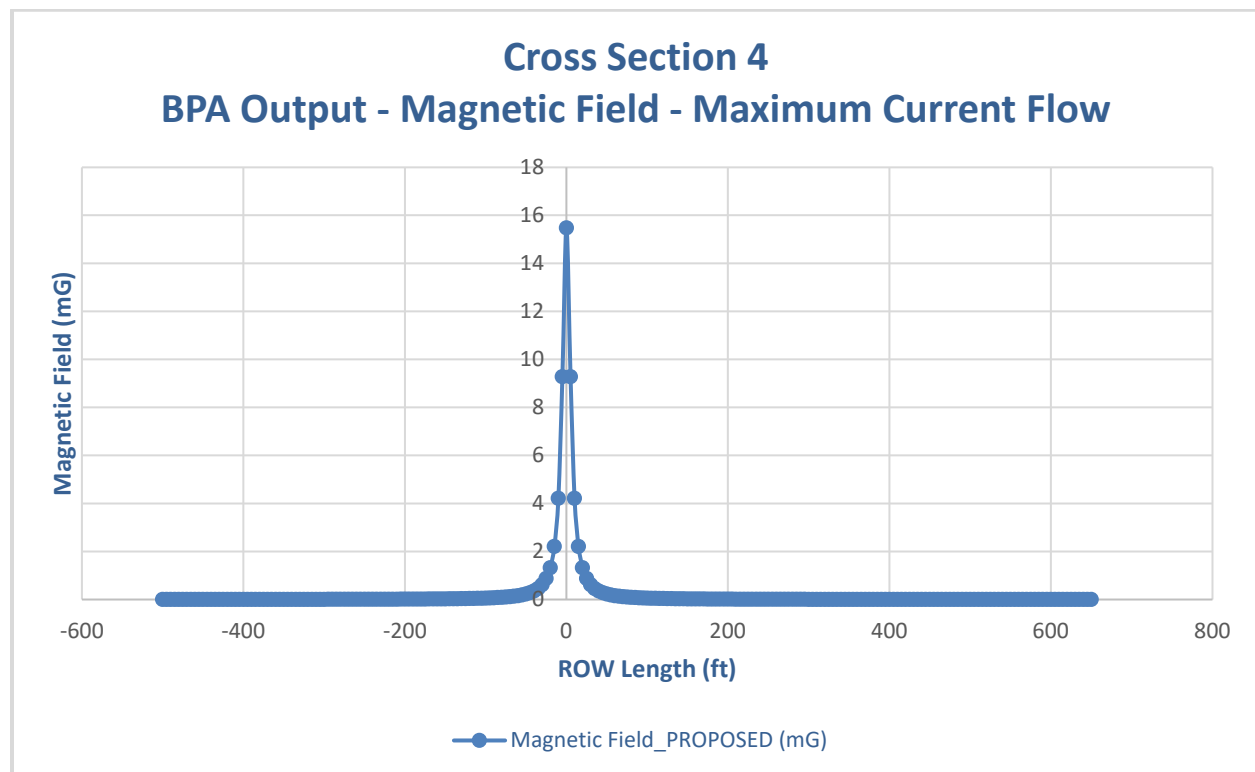
Cross Section 2



Cross Section 3



Cross Section 4



4.0 REFERENCES

1. STATE OF NEW YORK PUBLIC SERVICE COMMISSION CASES 26529 and 26559 - Proceeding on Motion of the Commission as to Regulations Regarding Electric and Magnetic Field Standards for Transmission Lines – Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (Issued and Effective: September 11, 1990)
2. STATE OF NEW YORK PUBLIC SERVICE COMMISSION OPINION NO. 78-13 - Opinion and Order Determining Health and Safety Issues, Imposing Operating Conditions and Authorizing, in Case 26529, Operation Pursuant to those Conditions (Issued June 19, 1978)
3. New York Power Pool – Tie-Line Rating Task Force – Final Report on Tie-Line Rating (Approved November 1995)
4. EPRI AC Transmission Line Reference Book – 200 kV and Above, 2015 Edition (3002005659 Update November 2015)
5. NYISO 2016 Load & Capacity Data, “Gold Book” (Released April 2016)
6. National Electrical Safety Code (NESC) - 2017 Edition (C2-2017)

Appendix A: EMF Study (ROW Cross Sections 1,2,3 and 4)

Ampacity Calculation.txt

MAGNETIC FLUX DENSITY [mG]

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Study : Watkins Glen Solar Energy Center Ampacity Study
Execution: Cable in Trench (1250kcmil+1250kcmil, 11')

Report created on: 05/05/20 8:36:01 AM

X (feet)	Y=0.0 (feet)	Y=1.0 (feet)
	B(mG)	B(mG)
-500.0	0.0046	0.0046
-495.0	0.0047	0.0047
-490.0	0.0048	0.0048
-485.0	0.0049	0.0049
-480.0	0.005	0.005
-475.0	0.0051	0.0051
-470.0	0.0052	0.0052
-465.0	0.0053	0.0053
-460.0	0.0055	0.0055
-455.0	0.0056	0.0056
-450.0	0.0057	0.0057
-445.0	0.0058	0.0058
-440.0	0.006	0.006
-435.0	0.0061	0.0061
-430.0	0.0062	0.0062
-425.0	0.0064	0.0064
-420.0	0.0066	0.0066
-415.0	0.0067	0.0067
-410.0	0.0069	0.0069
-405.0	0.007	0.007
-400.0	0.0072	0.0072
-395.0	0.0074	0.0074
-390.0	0.0076	0.0076
-385.0	0.0078	0.0078
-380.0	0.008	0.008
-375.0	0.0082	0.0082
-370.0	0.0084	0.0084
-365.0	0.0087	0.0087
-360.0	0.0089	0.0089
-355.0	0.0092	0.0092
-350.0	0.0094	0.0094
-345.0	0.0097	0.0097
-340.0	0.01	0.01
-335.0	0.0103	0.0103

Ampacity Calculation.txt

-330.0	0.0106	0.0106
-325.0	0.0109	0.0109
-320.0	0.0113	0.0113
-315.0	0.0116	0.0116
-310.0	0.012	0.012
-305.0	0.0124	0.0124
-300.0	0.0128	0.0128
-295.0	0.0133	0.0133
-290.0	0.0137	0.0137
-285.0	0.0142	0.0142
-280.0	0.0147	0.0147
-275.0	0.0153	0.0153
-270.0	0.0159	0.0159
-265.0	0.0165	0.0165
-260.0	0.0171	0.0171
-255.0	0.0178	0.0178
-250.0	0.0185	0.0185
-245.0	0.0193	0.0193
-240.0	0.0201	0.0201
-235.0	0.0209	0.0209
-230.0	0.0219	0.0219
-225.0	0.0228	0.0228
-220.0	0.0239	0.0239
-215.0	0.025	0.025
-210.0	0.0262	0.0262
-205.0	0.0275	0.0275
-200.0	0.0289	0.0289
-195.0	0.0304	0.0304
-190.0	0.0321	0.032
-185.0	0.0338	0.0338
-180.0	0.0357	0.0357
-175.0	0.0378	0.0378
-170.0	0.0401	0.04
-165.0	0.0425	0.0425
-160.0	0.0452	0.0452
-155.0	0.0482	0.0482
-150.0	0.0515	0.0515
-145.0	0.0551	0.0551
-140.0	0.0591	0.0591
-135.0	0.0636	0.0636
-130.0	0.0686	0.0686
-125.0	0.0742	0.0742
-120.0	0.0805	0.0805
-115.0	0.0877	0.0877
-110.0	0.0959	0.0959
-105.0	0.1053	0.1052
-100.0	0.1162	0.1161
-95.0	0.1288	0.1287

Ampacity Calculation.txt

-90.0	0.1436	0.1435
-85.0	0.1612	0.1609
-80.0	0.1821	0.1818
-75.0	0.2075	0.2071
-70.0	0.2385	0.238
-65.0	0.2771	0.2765
-60.0	0.326	0.3251
-55.0	0.3891	0.3878
-50.0	0.4726	0.4707
-45.0	0.5865	0.5835
-40.0	0.7475	0.7426
-35.0	0.9862	0.9776
-30.0	1.3628	1.3458
-25.0	2.0096	1.9711
-20.0	3.2676	3.16
-15.0	6.2276	5.8076
-10.0	15.3098	12.6568
-5.0	29.9743	19.3417
0.0	4.9127	0.7854
5.0	29.9742	19.3417
10.0	15.3098	12.6568
15.0	6.2276	5.8077
20.0	3.2676	3.16
25.0	2.0096	1.9711
30.0	1.3628	1.3458
35.0	0.9862	0.9776
40.0	0.7475	0.7426
45.0	0.5865	0.5835
50.0	0.4726	0.4707
55.0	0.3891	0.3878
60.0	0.326	0.3251
65.0	0.2771	0.2765
70.0	0.2385	0.238
75.0	0.2075	0.2071
80.0	0.1821	0.1818
85.0	0.1612	0.1609
90.0	0.1436	0.1435
95.0	0.1288	0.1287
100.0	0.1162	0.1161
105.0	0.1053	0.1052
110.0	0.0959	0.0959
115.0	0.0877	0.0877
120.0	0.0805	0.0805
125.0	0.0742	0.0742
130.0	0.0686	0.0686
135.0	0.0636	0.0636
140.0	0.0591	0.0591
145.0	0.0551	0.0551

Ampacity Calculation.txt

150.0	0.0515	0.0515
155.0	0.0482	0.0482
160.0	0.0452	0.0452
165.0	0.0425	0.0425
170.0	0.0401	0.04
175.0	0.0378	0.0378
180.0	0.0357	0.0357
185.0	0.0338	0.0338
190.0	0.0321	0.032
195.0	0.0304	0.0304
200.0	0.0289	0.0289
205.0	0.0275	0.0275
210.0	0.0262	0.0262
215.0	0.025	0.025
220.0	0.0239	0.0239
225.0	0.0228	0.0228
230.0	0.0219	0.0219
235.0	0.0209	0.0209
240.0	0.0201	0.0201
245.0	0.0193	0.0193
250.0	0.0185	0.0185
255.0	0.0178	0.0178
260.0	0.0171	0.0171
265.0	0.0165	0.0165
270.0	0.0159	0.0159
275.0	0.0153	0.0153
280.0	0.0147	0.0147
285.0	0.0142	0.0142
290.0	0.0137	0.0137
295.0	0.0133	0.0133
300.0	0.0128	0.0128
305.0	0.0124	0.0124
310.0	0.012	0.012
315.0	0.0116	0.0116
320.0	0.0113	0.0113
325.0	0.0109	0.0109
330.0	0.0106	0.0106
335.0	0.0103	0.0103
340.0	0.01	0.01
345.0	0.0097	0.0097
350.0	0.0094	0.0094
355.0	0.0092	0.0092
360.0	0.0089	0.0089
365.0	0.0087	0.0087
370.0	0.0084	0.0084
375.0	0.0082	0.0082
380.0	0.008	0.008
385.0	0.0078	0.0078

Ampacity Calculation.txt

390.0	0.0076	0.0076
395.0	0.0074	0.0074
400.0	0.0072	0.0072
405.0	0.007	0.007
410.0	0.0069	0.0069
415.0	0.0067	0.0067
420.0	0.0066	0.0066
425.0	0.0064	0.0064
430.0	0.0062	0.0062
435.0	0.0061	0.0061
440.0	0.006	0.006
445.0	0.0058	0.0058
450.0	0.0057	0.0057
455.0	0.0056	0.0056
460.0	0.0055	0.0055
465.0	0.0053	0.0053
470.0	0.0052	0.0052
475.0	0.0051	0.0051
480.0	0.005	0.005
485.0	0.0049	0.0049
490.0	0.0048	0.0048
495.0	0.0047	0.0047
500.0	0.0046	0.0046

Peak value found at:

X	Y=0.0	Y=1.0
(feet)	(feet)	(feet)
	B(mG)	B(mG)
-5.0	29.9743	19.3417

Under Road.txt

MAGNETIC FLUX DENSITY [mG]
=====

Study : Watkins Glen Solar Energy Center Ampacity Study
Execution: Roadway Crossing (1250 kcmil)

Report created on: 1/5/2021 9:35:12 AM

X (feet)	Y=0.0 (feet) B(mG)	Y=1.0 (feet) B(mG)
-500.0	0.0023	0.0023
-495.0	0.0024	0.0024
-490.0	0.0024	0.0024
-485.0	0.0025	0.0025
-480.0	0.0025	0.0025
-475.0	0.0026	0.0026
-470.0	0.0026	0.0026
-465.0	0.0027	0.0027
-460.0	0.0027	0.0027
-455.0	0.0028	0.0028
-450.0	0.0029	0.0029
-445.0	0.0029	0.0029
-440.0	0.003	0.003
-435.0	0.0031	0.0031
-430.0	0.0031	0.0031
-425.0	0.0032	0.0032
-420.0	0.0033	0.0033
-415.0	0.0034	0.0034
-410.0	0.0034	0.0034
-405.0	0.0035	0.0035
-400.0	0.0036	0.0036
-395.0	0.0037	0.0037
-390.0	0.0038	0.0038
-385.0	0.0039	0.0039
-380.0	0.004	0.004
-375.0	0.0041	0.0041
-370.0	0.0042	0.0042
-365.0	0.0043	0.0043
-360.0	0.0045	0.0045
-355.0	0.0046	0.0046
-350.0	0.0047	0.0047
-345.0	0.0049	0.0049
-340.0	0.005	0.005

Under Road.txt

-335.0	0.0052	0.0052
-330.0	0.0053	0.0053
-325.0	0.0055	0.0055
-320.0	0.0057	0.0057
-315.0	0.0058	0.0058
-310.0	0.006	0.006
-305.0	0.0062	0.0062
-300.0	0.0064	0.0064
-295.0	0.0067	0.0067
-290.0	0.0069	0.0069
-285.0	0.0071	0.0071
-280.0	0.0074	0.0074
-275.0	0.0077	0.0077
-270.0	0.0079	0.0079
-265.0	0.0082	0.0082
-260.0	0.0086	0.0086
-255.0	0.0089	0.0089
-250.0	0.0093	0.0093
-245.0	0.0096	0.0096
-240.0	0.0101	0.01
-235.0	0.0105	0.0105
-230.0	0.0109	0.0109
-225.0	0.0114	0.0114
-220.0	0.012	0.012
-215.0	0.0125	0.0125
-210.0	0.0131	0.0131
-205.0	0.0138	0.0138
-200.0	0.0145	0.0145
-195.0	0.0152	0.0152
-190.0	0.016	0.016
-185.0	0.0169	0.0169
-180.0	0.0179	0.0179
-175.0	0.0189	0.0189
-170.0	0.02	0.02
-165.0	0.0212	0.0212
-160.0	0.0226	0.0226
-155.0	0.0241	0.0241
-150.0	0.0257	0.0257
-145.0	0.0275	0.0275
-140.0	0.0295	0.0295
-135.0	0.0317	0.0317
-130.0	0.0342	0.0342
-125.0	0.037	0.037
-120.0	0.0401	0.0401
-115.0	0.0437	0.0436
-110.0	0.0477	0.0477
-105.0	0.0524	0.0523
-100.0	0.0577	0.0576

Under Road.txt

-95.0	0.0639	0.0638
-90.0	0.0712	0.0711
-85.0	0.0798	0.0796
-80.0	0.09	0.0898
-75.0	0.1023	0.1021
-70.0	0.1173	0.117
-65.0	0.1359	0.1355
-60.0	0.1592	0.1587
-55.0	0.1891	0.1883
-50.0	0.2283	0.2271
-45.0	0.2809	0.2791
-40.0	0.3538	0.3509
-35.0	0.4588	0.4541
-30.0	0.6179	0.6093
-25.0	0.8744	0.8573
-20.0	1.3242	1.2853
-15.0	2.2072	2.1012
-10.0	4.2148	3.8445
-5.0	9.2778	7.6548
0.0	15.474	11.4314
5.0	9.2778	7.6548
10.0	4.2148	3.8445
15.0	2.2072	2.1013
20.0	1.3242	1.2853
25.0	0.8744	0.8573
30.0	0.6179	0.6093
35.0	0.4588	0.4541
40.0	0.3538	0.3509
45.0	0.2809	0.2791
50.0	0.2283	0.2271
55.0	0.1891	0.1883
60.0	0.1592	0.1587
65.0	0.1359	0.1355
70.0	0.1173	0.117
75.0	0.1023	0.1021
80.0	0.09	0.0898
85.0	0.0798	0.0796
90.0	0.0712	0.0711
95.0	0.0639	0.0638
100.0	0.0577	0.0576
105.0	0.0524	0.0523
110.0	0.0477	0.0477
115.0	0.0437	0.0436
120.0	0.0401	0.0401
125.0	0.037	0.037
130.0	0.0342	0.0342
135.0	0.0317	0.0317
140.0	0.0295	0.0295

Under Road.txt

145.0	0.0275	0.0275
150.0	0.0257	0.0257
155.0	0.0241	0.0241
160.0	0.0226	0.0226
165.0	0.0212	0.0212
170.0	0.02	0.02
175.0	0.0189	0.0189
180.0	0.0179	0.0179
185.0	0.0169	0.0169
190.0	0.016	0.016
195.0	0.0152	0.0152
200.0	0.0145	0.0145
205.0	0.0138	0.0138
210.0	0.0131	0.0131
215.0	0.0125	0.0125
220.0	0.012	0.012
225.0	0.0114	0.0114
230.0	0.0109	0.0109
235.0	0.0105	0.0105
240.0	0.0101	0.01
245.0	0.0096	0.0096
250.0	0.0093	0.0093
255.0	0.0089	0.0089
260.0	0.0086	0.0086
265.0	0.0082	0.0082
270.0	0.0079	0.0079
275.0	0.0077	0.0077
280.0	0.0074	0.0074
285.0	0.0071	0.0071
290.0	0.0069	0.0069
295.0	0.0067	0.0067
300.0	0.0064	0.0064
305.0	0.0062	0.0062
310.0	0.006	0.006
315.0	0.0058	0.0058
320.0	0.0057	0.0057
325.0	0.0055	0.0055
330.0	0.0053	0.0053
335.0	0.0052	0.0052
340.0	0.005	0.005
345.0	0.0049	0.0049
350.0	0.0047	0.0047
355.0	0.0046	0.0046
360.0	0.0045	0.0045
365.0	0.0043	0.0043
370.0	0.0042	0.0042
375.0	0.0041	0.0041
380.0	0.004	0.004

Under Road.txt

385.0	0.0039	0.0039
390.0	0.0038	0.0038
395.0	0.0037	0.0037
400.0	0.0036	0.0036
405.0	0.0035	0.0035
410.0	0.0034	0.0034
415.0	0.0034	0.0034
420.0	0.0033	0.0033
425.0	0.0032	0.0032
430.0	0.0031	0.0031
435.0	0.0031	0.0031
440.0	0.003	0.003
445.0	0.0029	0.0029
450.0	0.0029	0.0029
455.0	0.0028	0.0028
460.0	0.0027	0.0027
465.0	0.0027	0.0027
470.0	0.0026	0.0026
475.0	0.0026	0.0026
480.0	0.0025	0.0025
485.0	0.0025	0.0025
490.0	0.0024	0.0024
495.0	0.0024	0.0024
500.0	0.0023	0.0023

Peak value found at:

X (feet)	Y=0.0 (feet) B(mG)	Y=1.0 (feet) B(mG)
0.0	15.474	11.4314

[illegible]

4/23/2020 23:05:02

(ENGLISH UNITS OPTION)

(GRADIENTS ARE COMPUTED BY PROGRAM)

PHYSICAL SYSTEM CONSISTS OF 8 CONDUCTORS, OF WHICH 6 ARE ENERGIZED PHASES

1COMBINED OUTPUT OF AUDIBLE NOISE, RADIO NOISE, TVI, OZONE CONCENTRATION, GROUND GRADIENT AND MAGNETIC FIELD
CROSS SECTION 1,,,,,,,,,
VERTICAL MONOPOLE SINGLE CIRCUIT WITH 2-115 kV NYSEG Lines,,,,,,,,,

AN MICROPHONE HT.= 5.0 FT, RI ANT. HT.= 6.6 FT, TV ANT. HT.= 9.8 FT, ALTITUDE= 0.0 FT
RI FREQ= 1.000 MHZ, TV FREQ= 75.000 MHZ, WIND VEL.(OZ)= 0.500 MPH, GROUND CONDUCTIVITY = 10.0 MMHOS/M
E-FIELD TRANSDUCER HT.= 3.3FT, B-FIELD TRANSDUCER HT.= 3.3FT

Page 1

summer_normal_0-495.txt							
0.00089							
-445.0	-3.0	-28.0	-6.2	-23.2	-39.3	0.000000	0.008
0.00091							
-440.0	-3.0	-28.0	-6.1	-23.1	-39.1	0.000000	0.009
0.00092							
-435.0	-3.0	-28.0	-6.0	-23.0	-38.9	0.000000	0.009
0.00094							
-430.0	-2.9	-27.9	-5.9	-22.9	-38.7	0.000000	0.009
0.00096							
-425.0	-2.9	-27.9	-5.8	-22.8	-38.6	0.000000	0.009
0.00098							
-420.0	-2.8	-27.8	-5.7	-22.7	-38.4	0.000000	0.009
0.00100							
-415.0	-2.7	-27.7	-5.6	-22.6	-38.2	0.000000	0.009
0.00102							
-410.0	-2.7	-27.7	-5.5	-22.5	-38.0	0.000000	0.010
0.00104							
-405.0	-2.6	-27.6	-5.4	-22.4	-37.8	0.000000	0.010
0.00106							
-400.0	-2.6	-27.6	-5.3	-22.3	-37.6	0.000000	0.010
0.00109							
-395.0	-2.5	-27.5	-5.2	-22.2	-37.4	0.000000	0.010
0.00111							
-390.0	-2.5	-27.5	-5.1	-22.1	-37.2	0.000000	0.010
0.00113							
-385.0	-2.4	-27.4	-5.0	-22.0	-37.0	0.000000	0.011
0.00116							
-380.0	-2.4	-27.4	-4.9	-21.9	-36.8	0.000000	0.011
0.00118							
-375.0	-2.3	-27.3	-4.8	-21.8	-36.6	0.000000	0.011
0.00121							
-370.0	-2.3	-27.3	-4.7	-21.7	-36.4	0.000000	0.011
0.00124							
-365.0	-2.2	-27.2	-4.6	-21.6	-36.2	0.000000	0.012
0.00127							
-360.0	-2.1	-27.1	-4.4	-21.4	-36.0	0.000000	0.012
0.00130							
-355.0	-2.1	-27.1	-4.3	-21.3	-35.8	0.000000	0.012
0.00133							
-350.0	-2.0	-27.0	-4.2	-21.2	-35.6	0.000000	0.012
0.00136							
-345.0	-2.0	-27.0	-4.1	-21.1	-35.5	0.000000	0.013
0.00139							
-340.0	-1.9	-26.9	-4.0	-21.0	-35.4	0.000000	0.013
0.00142							
-335.0	-1.9	-26.9	-3.8	-20.8	-35.3	0.000000	0.013
0.00146							
-330.0	-1.8	-26.8	-3.7	-20.7	-35.2	0.000000	0.014
0.00149							
-325.0	-1.7	-26.7	-3.6	-20.6	-35.1	0.000000	0.014
0.00153							
-320.0	-1.7	-26.7	-3.4	-20.4	-35.0	0.000000	0.014
0.00157							
-315.0	-1.6	-26.6	-3.3	-20.3	-34.9	0.000000	0.015
0.00161							
-310.0	-1.5	-26.5	-3.2	-20.2	-34.7	0.000000	0.015
0.00165							
-305.0	-1.5	-26.5	-3.0	-20.0	-34.6	0.000000	0.015
0.00170							
-300.0	-1.4	-26.4	-2.9	-19.9	-34.5	0.000000	0.016
0.00174							
-295.0	-1.3	-26.3	-2.7	-19.7	-34.4	0.000000	0.016
0.00179							
-290.0	-1.3	-26.3	-2.6	-19.6	-34.2	0.000000	0.017
0.00184							
-285.0	-1.2	-26.2	-2.4	-19.4	-34.1	0.000000	0.017
0.00189							
-280.0	-1.1	-26.1	-2.3	-19.3	-34.0	0.000000	0.018
0.00194							
-275.0	-1.1	-26.1	-2.1	-19.1	-33.9	0.000000	0.018
0.00200							
-270.0	-1.0	-26.0	-2.0	-19.0	-33.7	0.000000	0.018
0.00206							
-265.0	-0.9	-25.9	-1.8	-18.8	-33.6	0.000000	0.019
0.00212							
-260.0	-0.8	-25.8	-1.7	-18.7	-33.4	0.000000	0.020
0.00218							
-255.0	-0.8	-25.8	-1.5	-18.5	-33.3	0.000000	0.020
0.00225							
-250.0	-0.7	-25.7	-1.3	-18.3	-33.2	0.000000	0.021
0.00232							
-245.0	-0.6	-25.6	-1.1	-18.1	-33.0	0.000000	0.021

summer_normal_0-495.txt							
0.00239	-240.0	-0.5	-25.5	-1.0	-18.0	-32.9	0.000000 0.022
0.00247	-235.0	-0.4	-25.4	-0.8	-17.8	-32.7	0.000000 0.023
0.00255	-230.0	-0.4	-25.4	-0.6	-17.6	-32.6	0.000000 0.023
0.00263	-225.0	-0.3	-25.3	-0.4	-17.4	-32.4	0.000000 0.024
0.00272	-220.0	-0.2	-25.2	-0.2	-17.2	-32.3	0.000000 0.025
0.00281	-215.0	-0.1	-25.1	-0.0	-17.0	-32.1	0.000000 0.026
0.00291	-210.0	-0.0	-25.0	0.2	-16.8	-31.9	0.000000 0.026
0.00301	-205.0	0.1	-24.9	0.4	-16.6	-31.8	0.000000 0.027
0.00312	-200.0	0.2	-24.8	0.6	-16.4	-31.6	0.000000 0.028
0.00323	-195.0	0.3	-24.7	0.8	-16.2	-31.4	0.000000 0.029
0.00335	-190.0	0.4	-24.6	1.1	-15.9	-31.3	0.000000 0.030
0.00348	-185.0	0.5	-24.5	1.3	-15.7	-31.1	0.000000 0.031
0.00361	-180.0	0.6	-24.4	1.5	-15.5	-30.9	0.000000 0.032
0.00375	-175.0	0.7	-24.3	1.8	-15.2	-30.7	0.000000 0.033
0.00390	-170.0	0.8	-24.2	2.0	-15.0	-30.5	0.000000 0.035
0.00406	-165.0	0.9	-24.1	2.3	-14.7	-30.3	0.000000 0.036
0.00423	-160.0	1.0	-24.0	2.6	-14.4	-30.1	0.000000 0.037
0.00441	-155.0	1.1	-23.9	2.8	-14.2	-29.9	0.000000 0.039
0.00461	-150.0	1.2	-23.8	3.1	-13.9	-29.7	0.000000 0.040
0.00481	-145.0	1.3	-23.7	3.4	-13.6	-29.5	0.000000 0.042
0.00503	-140.0	1.4	-23.6	3.7	-13.3	-29.3	0.000000 0.043
0.00526	-135.0	1.5	-23.5	4.0	-13.0	-29.1	0.000000 0.045
0.00551	-130.0	1.7	-23.3	4.3	-12.7	-28.8	0.000000 0.047
0.00578	-125.0	1.8	-23.2	4.7	-12.3	-28.6	0.000000 0.049
0.00607	-120.0	1.9	-23.1	5.0	-12.0	-28.4	0.000000 0.051
0.00638	-115.0	2.0	-23.0	5.4	-11.6	-28.1	0.000000 0.053
0.00672	-110.0	2.2	-22.8	5.8	-11.2	-27.9	0.000000 0.056
0.00708	-105.0	2.3	-22.7	6.1	-10.9	-27.6	0.000000 0.058
0.00747	-100.0	2.5	-22.5	6.5	-10.5	-27.3	0.000000 0.060
0.00789	-95.0	2.6	-22.4	7.0	-10.0	-27.0	0.000000 0.063
0.00836	-90.0	2.8	-22.2	7.4	-9.6	-26.8	0.000000 0.066
0.00886	-85.0	2.9	-22.1	7.8	-9.2	-26.5	0.000000 0.069
0.00940	-80.0	3.1	-21.9	8.3	-8.7	-26.2	0.000000 0.072
0.01000	-75.0	3.3	-21.7	8.8	-8.2	-25.8	0.000000 0.075
0.01066	-70.0	3.4	-21.6	9.3	-7.7	-25.5	0.000000 0.078
0.01138	-65.0	3.6	-21.4	9.9	-7.1	-25.2	0.000000 0.081
0.01218	-60.0	3.8	-21.2	10.4	-6.6	-24.8	0.000000 0.084
0.01306	-55.0	4.0	-21.0	11.0	-6.0	-24.5	0.000000 0.087
0.01403	-50.0	4.2	-20.8	11.7	-5.3	-24.1	0.000000 0.090
0.01512	-45.0	4.4	-20.6	12.3	-4.7	-23.7	0.000000 0.092
0.01633	-40.0	4.6	-20.4	13.0	-4.0	-23.3	0.000000 0.094

summer_normal_0-495.txt							
0.01769							
-35.0	4.8	-20.2	13.7	-3.3	-22.8	0.000000	0.095
0.01921							
-30.0	5.1	-19.9	14.5	-2.5	-22.4	0.000000	0.094
0.02093							
-25.0	5.3	-19.7	15.3	-1.7	-21.9	0.000000	0.092
0.02288							
-20.0	5.5	-19.5	16.1	-0.9	-21.3	0.000000	0.088
0.02510							
-15.0	5.8	-19.2	17.0	-0.0	-20.7	0.000000	0.080
0.02762							
-10.0	6.1	-18.9	17.9	0.9	-20.0	0.000000	0.069
0.03052							
-5.0	6.4	-18.6	18.8	1.8	-19.3	0.000000	0.055
0.03385							
0.0	6.7	-18.3	19.8	2.8	-18.5	0.000000	0.045
0.03769							
5.0	7.0	-18.0	20.9	3.9	-17.7	0.000000	0.075
0.04213							
10.0	7.4	-17.6	21.9	4.9	-16.8	0.000000	0.138
0.04726							
15.0	7.7	-17.3	23.0	6.0	-15.8	0.000000	0.235
0.05320							
20.0	8.1	-16.9	24.1	7.1	-14.7	0.000000	0.373
0.06001							
25.0	8.5	-16.5	25.9	8.9	-13.5	0.000000	0.563
0.06767							
30.0	8.9	-16.1	28.2	11.2	-12.2	0.000000	0.813
0.07596							
35.0	9.3	-15.7	30.5	13.5	-10.8	0.000000	1.121
0.08419							
40.0	9.6	-15.4	32.7	15.7	-9.4	0.000000	1.454
0.09091							
45.0	9.9	-15.1	34.3	17.3	-8.3	0.000000	1.736
0.09382							
50.0	10.1	-14.9	34.9	17.9	-7.8	0.000000	1.871
0.09063							
55.0	10.0	-15.0	34.3	17.3	-8.3	0.004624	1.816
0.08091							
60.0	9.9	-15.1	32.7	15.7	-9.4	0.008236	1.626
0.06687							
65.0	9.7	-15.3	30.5	13.5	-10.8	0.008657	1.408
0.05212							
70.0	9.5	-15.5	28.2	11.2	-12.2	0.008113	1.251
0.04075							
75.0	9.3	-15.7	25.9	8.9	-13.5	0.007386	1.198
0.03653							
80.0	9.2	-15.8	24.1	7.1	-14.7	0.006696	1.262
0.04075							
85.0	9.1	-15.9	26.3	9.3	-15.0	0.006091	1.431
0.05212							
90.0	9.1	-15.9	28.5	11.5	-13.6	0.005574	1.660
0.06687							
95.0	9.0	-16.0	30.1	13.1	-12.5	0.005133	1.860
0.08091							
100.0	8.9	-16.1	30.7	13.7	-12.1	0.004754	1.919
0.09063							
105.0	8.7	-16.3	30.1	13.1	-12.5	0.007229	1.781
0.09382							
110.0	8.4	-16.6	28.5	11.5	-13.6	0.009144	1.493
0.09091							
115.0	8.0	-17.0	26.3	9.3	-15.0	0.009152	1.152
0.08419							
120.0	7.7	-17.3	24.0	7.0	-16.4	0.008602	0.837
0.07596							
125.0	7.3	-17.7	21.7	4.7	-17.7	0.007965	0.579
0.06767							
130.0	7.0	-18.0	19.9	2.9	-19.0	0.007370	0.385
0.06001							
135.0	6.7	-18.3	18.8	1.8	-20.0	0.006845	0.243
0.05320							
140.0	6.4	-18.6	17.8	0.8	-21.0	0.006388	0.144
0.04726							
145.0	6.1	-18.9	16.7	-0.3	-21.9	0.005990	0.078
0.04213							
150.0	5.8	-19.2	15.7	-1.3	-22.8	0.005641	0.045
0.03769							
155.0	5.5	-19.5	14.7	-2.3	-23.5	0.005334	0.054
0.03385							
160.0	5.2	-19.8	13.7	-3.3	-24.2	0.005061	0.069
0.03052							
165.0	5.0	-20.0	12.8	-4.2	-24.9	0.004818	0.080

summer_normal_0-495.txt							
0.02762							
170.0	4.8	-20.2	11.9	-5.1	-25.5	0.004598	0.088
0.02510							
175.0	4.5	-20.5	11.1	-5.9	-25.8	0.004400	0.093
0.02288							
180.0	4.3	-20.7	10.3	-6.7	-26.2	0.004220	0.095
0.02093							
185.0	4.1	-20.9	9.5	-7.5	-26.5	0.004055	0.095
0.01921							
190.0	3.9	-21.1	8.8	-8.2	-26.8	0.003904	0.094
0.01769							
195.0	3.7	-21.3	8.1	-8.9	-27.0	0.003765	0.093
0.01633							
200.0	3.5	-21.5	7.5	-9.5	-27.3	0.003636	0.090
0.01512							
205.0	3.4	-21.6	6.8	-10.2	-27.6	0.003517	0.087
0.01403							
210.0	3.2	-21.8	6.3	-10.7	-27.9	0.003406	0.085
0.01306							
215.0	3.0	-22.0	5.7	-11.3	-28.1	0.003302	0.081
0.01218							
220.0	2.9	-22.1	5.1	-11.9	-28.4	0.003205	0.078
0.01138							
225.0	2.7	-22.3	4.7	-12.3	-28.6	0.003114	0.075
0.01066							
230.0	2.6	-22.4	4.3	-12.7	-28.8	0.003029	0.072
0.01000							
235.0	2.4	-22.6	4.0	-13.0	-29.1	0.002949	0.069
0.00940							
240.0	2.3	-22.7	3.7	-13.3	-29.3	0.002873	0.066
0.00886							
245.0	2.1	-22.9	3.4	-13.6	-29.5	0.002801	0.064
0.00836							
250.0	2.0	-23.0	3.1	-13.9	-29.7	0.002733	0.061
0.00789							
255.0	1.9	-23.1	2.8	-14.2	-29.9	0.002669	0.058
0.00747							
260.0	1.7	-23.3	2.6	-14.4	-30.1	0.002607	0.056
0.00708							
265.0	1.6	-23.4	2.3	-14.7	-30.3	0.002549	0.054
0.00672							
270.0	1.5	-23.5	2.0	-15.0	-30.5	0.002494	0.051
0.00638							
275.0	1.4	-23.6	1.8	-15.2	-30.7	0.002441	0.049
0.00607							
280.0	1.3	-23.7	1.5	-15.5	-30.9	0.002390	0.047
0.00578							
285.0	1.1	-23.9	1.3	-15.7	-31.1	0.002342	0.046
0.00551							
290.0	1.0	-24.0	1.1	-15.9	-31.3	0.002296	0.044
0.00526							
295.0	0.9	-24.1	0.8	-16.2	-31.4	0.002252	0.042
0.00503							
300.0	0.8	-24.2	0.6	-16.4	-31.6	0.002209	0.041
0.00481							
305.0	0.7	-24.3	0.4	-16.6	-31.8	0.002169	0.039
0.00461							
310.0	0.6	-24.4	0.2	-16.8	-31.9	0.002130	0.038
0.00441							
315.0	0.5	-24.5	-0.0	-17.0	-32.1	0.002092	0.036
0.00423							
320.0	0.4	-24.6	-0.2	-17.2	-32.3	0.002056	0.035
0.00406							
325.0	0.3	-24.7	-0.4	-17.4	-32.4	0.002021	0.034
0.00390							
330.0	0.2	-24.8	-0.6	-17.6	-32.6	0.001987	0.032
0.00375							
335.0	0.1	-24.9	-0.8	-17.8	-32.7	0.001955	0.031
0.00361							
340.0	0.0	-25.0	-1.0	-18.0	-32.9	0.001924	0.030
0.00348							
345.0	-0.1	-25.1	-1.1	-18.1	-33.0	0.001893	0.029
0.00335							
350.0	-0.1	-25.1	-1.3	-18.3	-33.2	0.001864	0.028
0.00323							
355.0	-0.2	-25.2	-1.5	-18.5	-33.3	0.001836	0.027
0.00312							
360.0	-0.3	-25.3	-1.7	-18.7	-33.4	0.001809	0.027
0.00301							
365.0	-0.4	-25.4	-1.8	-18.8	-33.6	0.001782	0.026
0.00291							
370.0	-0.5	-25.5	-2.0	-19.0	-33.7	0.001756	0.025

summer_normal_0-495.txt							
0.00281							
375.0	-0.6	-25.6	-2.1	-19.1	-33.9	0.001732	0.024
0.00272							
380.0	-0.6	-25.6	-2.3	-19.3	-34.0	0.001708	0.023
0.00263							
385.0	-0.7	-25.7	-2.4	-19.4	-34.1	0.001684	0.023
0.00255							
390.0	-0.8	-25.8	-2.6	-19.6	-34.2	0.001661	0.022
0.00247							
395.0	-0.9	-25.9	-2.7	-19.7	-34.4	0.001639	0.021
0.00239							
400.0	-0.9	-25.9	-2.9	-19.9	-34.5	0.001618	0.021
0.00232							
405.0	-1.0	-26.0	-3.0	-20.0	-34.6	0.001597	0.020
0.00225							
410.0	-1.1	-26.1	-3.2	-20.2	-34.7	0.001577	0.020
0.00218							
415.0	-1.2	-26.2	-3.3	-20.3	-34.9	0.001557	0.019
0.00212							
420.0	-1.2	-26.2	-3.4	-20.4	-35.0	0.001538	0.019
0.00206							
425.0	-1.3	-26.3	-3.6	-20.6	-35.1	0.001519	0.018
0.00200							
430.0	-1.4	-26.4	-3.7	-20.7	-35.2	0.001501	0.018
0.00194							
435.0	-1.4	-26.4	-3.8	-20.8	-35.3	0.001484	0.017
0.00189							
440.0	-1.5	-26.5	-4.0	-21.0	-35.4	0.001466	0.017
0.00184							
445.0	-1.6	-26.6	-4.1	-21.1	-35.5	0.001449	0.016
0.00179							
450.0	-1.6	-26.6	-4.2	-21.2	-35.6	0.001433	0.016
0.00174							
455.0	-1.7	-26.7	-4.3	-21.3	-35.8	0.001417	0.015
0.00170							
460.0	-1.8	-26.8	-4.4	-21.4	-36.0	0.001401	0.015
0.00165							
465.0	-1.8	-26.8	-4.6	-21.6	-36.2	0.001386	0.015
0.00161							
470.0	-1.9	-26.9	-4.7	-21.7	-36.4	0.001371	0.014
0.00157							
475.0	-1.9	-26.9	-4.8	-21.8	-36.6	0.001357	0.014
0.00153							
480.0	-2.0	-27.0	-4.9	-21.9	-36.8	0.001342	0.014
0.00149							
485.0	-2.1	-27.1	-5.0	-22.0	-37.0	0.001328	0.013
0.00146							
490.0	-2.1	-27.1	-5.1	-22.1	-37.2	0.001315	0.013
0.00142							
495.0	-2.2	-27.2	-5.2	-22.2	-37.4	0.001301	0.013
0.00139							
500.0	-2.2	-27.2	-5.3	-22.3	-37.6	0.001288	0.012
0.00136							

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CROSS SECTION 1,,,,,,,,,
VERTICAL MONOPOLE SINGLE CIRCUIT WITH 2-115 kV NYSEG Lines,,,,,,,,,
1,0, 6, 8,0.0, 0.50, 1.00, 0.00

(ENGLISH UNITS OPTION)

(GRADIENTS ARE COMPUTED BY PROGRAM)

PHYSICAL SYSTEM CONSISTS OF 8 CONDUCTORS, OF WHICH 6 ARE ENERGIZED PHASES

OPTIONS:	'COMB'	5.000	6.600	9.800	0.000	1.000	75.000	3.280	10.000	3.280
'NYSEG1	'A'	50.00	65.00	1	1.107	0.000	66.395	0.000	0.670	0.000
'NYSEG1	'A'	50.00	45.00	1	1.107	0.000	66.395	-120.000	0.670	0.000
'NYSEG1	'A'	50.00	25.00	1	1.107	0.000	66.395	120.000	0.670	0.000
'NYSEG2	'A'	100.00	65.00	1	1.302	0.000	66.395	0.000	0.670	0.000
'NYSEG2	'A'	100.00	45.00	1	1.302	0.000	66.395	-120.000	0.670	0.000
'NYSEG2	'A'	100.00	25.00	1	1.302	0.000	66.395	120.000	0.670	0.000
'SW	'A'	50.00	80.00	1	0.390	0.000	0.000	0.000	0.000	0.000
'SW	'A'	100.00	80.00	1	0.390	0.000	0.000	0.000	0.000	0.000

1COMBINED OUTPUT OF AUDIBLE NOISE, RADIO NOISE, TVI, OZONE CONCENTRATION, GROUND GRADIENT AND MAGNETIC FIELD
CROSS SECTION 1,,,,,,,,,
VERTICAL MONOPOLE SINGLE CIRCUIT WITH 2-115 kV NYSEG Lines,,,,,,,,,

	DIST. FROM CENTER OF TOWER (FEET)	HEIGHT (FEET)	MAXIMUM GRADIENT (KV/CM)	SUBCON DIAM. (IN)	NO. OF SUBCON	SUBCON SPACING (IN)	VOLTAGE L-N (KV)	PHASE ANGLE (DEGREES)	CURRENT (kAmps)	CORONA LOSSES (KW/MI)
NYSEG1	50.00	65.00	7.37	1.11	1	0.00	66.40	0.00	0.67	0.028
NYSEG1	50.00	45.00	7.83	1.11	1	0.00	66.40	-120.00	0.67	0.041
NYSEG1	50.00	25.00	7.73	1.11	1	0.00	66.40	120.00	0.67	0.038
NYSEG2	100.00	65.00	6.44	1.30	1	0.00	66.40	0.00	0.67	0.022
NYSEG2	100.00	45.00	6.84	1.30	1	0.00	66.40	-120.00	0.67	0.033
NYSEG2	100.00	25.00	6.76	1.30	1	0.00	66.40	120.00	0.67	0.030
SW	50.00	80.00	3.56	0.39	1	0.00	0.00	0.00	0.00	0.000
SW	100.00	80.00	3.62	0.39	1	0.00	0.00	0.00	0.00	0.000

AN MICROPHONE HT.= 5.0 FT, RI ANT. HT.= 6.6 FT, TV ANT. HT.= 9.8 FT, ALTITUDE= 0.0 FT
RI FREQ= 1.000 MHZ, TV FREQ= 75.000 MHZ, WIND VEL.(OZ)= 0.500 MPH, GROUND CONDUCTIVITY = 10.0 MMHOS/M
E-FIELD TRANSDUCER HT.= 3.3FT, B-FIELD TRANSDUCER HT.= 3.3FT

LATERAL DIST FROM	AUDIBLE (RAIN)	NOISE (FAIR)	RADIO INTERFERENCE (RAIN)	INTERFERENCE (FAIR)	TVI TOTAL	OZONE FOR RAIN RATE OF	ELECTRIC
MAGNETIC REFERENCE FIELD (FEET)	L50	L50	L50	L50	RAIN	1.00 IN/HR AT 0. FT LEVEL	FIELD
GAUSS	DBA	DBA	DBUV/M	DBUV/M	DBUV/M	PPB	KV/M
-500.0 0.00092	-3.6	-28.6	-7.2	-24.2	-41.1	0.000000	0.007
-495.0 0.00094	-3.5	-28.5	-7.1	-24.1	-40.9	0.000000	0.007
-490.0 0.00095	-3.5	-28.5	-7.0	-24.0	-40.8	0.000000	0.007
-485.0 0.00097	-3.4	-28.4	-6.9	-23.9	-40.6	0.000000	0.007
-480.0 0.00099	-3.4	-28.4	-6.9	-23.9	-40.5	0.000000	0.007
-475.0 0.00101	-3.3	-28.3	-6.8	-23.8	-40.3	0.000000	0.008
-470.0 0.00102	-3.3	-28.3	-6.7	-23.7	-40.1	0.000000	0.008
-465.0 0.00104	-3.2	-28.2	-6.6	-23.6	-40.0	0.000000	0.008
-460.0 0.00106	-3.2	-28.2	-6.5	-23.5	-39.8	0.000000	0.008
-455.0 0.00108	-3.1	-28.1	-6.4	-23.4	-39.6	0.000000	0.008
-450.0	-3.1	-28.1	-6.3	-23.3	-39.5	0.000000	0.008

winter_normal-500.txt							
0.00110	-445.0	-3.0	-28.0	-6.2	-23.2	-39.3	0.000000 0.008
0.00113	-440.0	-3.0	-28.0	-6.1	-23.1	-39.1	0.000000 0.009
0.00115	-435.0	-3.0	-28.0	-6.0	-23.0	-38.9	0.000000 0.009
0.00117	-430.0	-2.9	-27.9	-5.9	-22.9	-38.7	0.000000 0.009
0.00119	-425.0	-2.9	-27.9	-5.8	-22.8	-38.6	0.000000 0.009
0.00122	-420.0	-2.8	-27.8	-5.7	-22.7	-38.4	0.000000 0.009
0.00124	-415.0	-2.7	-27.7	-5.6	-22.6	-38.2	0.000000 0.009
0.00127	-410.0	-2.7	-27.7	-5.5	-22.5	-38.0	0.000000 0.010
0.00129	-405.0	-2.6	-27.6	-5.4	-22.4	-37.8	0.000000 0.010
0.00132	-400.0	-2.6	-27.6	-5.3	-22.3	-37.6	0.000000 0.010
0.00135	-395.0	-2.5	-27.5	-5.2	-22.2	-37.4	0.000000 0.010
0.00138	-390.0	-2.5	-27.5	-5.1	-22.1	-37.2	0.000000 0.010
0.00141	-385.0	-2.4	-27.4	-5.0	-22.0	-37.0	0.000000 0.011
0.00144	-380.0	-2.4	-27.4	-4.9	-21.9	-36.8	0.000000 0.011
0.00147	-375.0	-2.3	-27.3	-4.8	-21.8	-36.6	0.000000 0.011
0.00150	-370.0	-2.3	-27.3	-4.7	-21.7	-36.4	0.000000 0.011
0.00154	-365.0	-2.2	-27.2	-4.6	-21.6	-36.2	0.000000 0.012
0.00157	-360.0	-2.1	-27.1	-4.4	-21.4	-36.0	0.000000 0.012
0.00161	-355.0	-2.1	-27.1	-4.3	-21.3	-35.8	0.000000 0.012
0.00164	-350.0	-2.0	-27.0	-4.2	-21.2	-35.6	0.000000 0.012
0.00168	-345.0	-2.0	-27.0	-4.1	-21.1	-35.5	0.000000 0.013
0.00172	-340.0	-1.9	-26.9	-4.0	-21.0	-35.4	0.000000 0.013
0.00177	-335.0	-1.9	-26.9	-3.8	-20.8	-35.3	0.000000 0.013
0.00181	-330.0	-1.8	-26.8	-3.7	-20.7	-35.2	0.000000 0.014
0.00185	-325.0	-1.7	-26.7	-3.6	-20.6	-35.1	0.000000 0.014
0.00190	-320.0	-1.7	-26.7	-3.4	-20.4	-35.0	0.000000 0.014
0.00195	-315.0	-1.6	-26.6	-3.3	-20.3	-34.9	0.000000 0.015
0.00200	-310.0	-1.5	-26.5	-3.2	-20.2	-34.7	0.000000 0.015
0.00205	-305.0	-1.5	-26.5	-3.0	-20.0	-34.6	0.000000 0.015
0.00210	-300.0	-1.4	-26.4	-2.9	-19.9	-34.5	0.000000 0.016
0.00216	-295.0	-1.3	-26.3	-2.7	-19.7	-34.4	0.000000 0.016
0.00222	-290.0	-1.3	-26.3	-2.6	-19.6	-34.2	0.000000 0.017
0.00228	-285.0	-1.2	-26.2	-2.4	-19.4	-34.1	0.000000 0.017
0.00234	-280.0	-1.1	-26.1	-2.3	-19.3	-34.0	0.000000 0.018
0.00241	-275.0	-1.1	-26.1	-2.1	-19.1	-33.9	0.000000 0.018
0.00248	-270.0	-1.0	-26.0	-2.0	-19.0	-33.7	0.000000 0.018
0.00255	-265.0	-0.9	-25.9	-1.8	-18.8	-33.6	0.000000 0.019
0.00263	-260.0	-0.8	-25.8	-1.7	-18.7	-33.4	0.000000 0.020
0.00271	-255.0	-0.8	-25.8	-1.5	-18.5	-33.3	0.000000 0.020
0.00279	-250.0	-0.7	-25.7	-1.3	-18.3	-33.2	0.000000 0.021
0.00287	-245.0	-0.6	-25.6	-1.1	-18.1	-33.0	0.000000 0.021

winter_normal-500.txt							
0.00296							
-240.0	-0.5	-25.5	-1.0	-18.0	-32.9	0.000000	0.022
0.00306							
-235.0	-0.4	-25.4	-0.8	-17.8	-32.7	0.000000	0.023
0.00316							
-230.0	-0.4	-25.4	-0.6	-17.6	-32.6	0.000000	0.023
0.00326							
-225.0	-0.3	-25.3	-0.4	-17.4	-32.4	0.000000	0.024
0.00337							
-220.0	-0.2	-25.2	-0.2	-17.2	-32.3	0.000000	0.025
0.00349							
-215.0	-0.1	-25.1	-0.0	-17.0	-32.1	0.000000	0.026
0.00361							
-210.0	-0.0	-25.0	0.2	-16.8	-31.9	0.000000	0.026
0.00373							
-205.0	0.1	-24.9	0.4	-16.6	-31.8	0.000000	0.027
0.00387							
-200.0	0.2	-24.8	0.6	-16.4	-31.6	0.000000	0.028
0.00401							
-195.0	0.3	-24.7	0.8	-16.2	-31.4	0.000000	0.029
0.00416							
-190.0	0.4	-24.6	1.1	-15.9	-31.3	0.000000	0.030
0.00431							
-185.0	0.5	-24.5	1.3	-15.7	-31.1	0.000000	0.031
0.00448							
-180.0	0.6	-24.4	1.5	-15.5	-30.9	0.000000	0.032
0.00466							
-175.0	0.7	-24.3	1.8	-15.2	-30.7	0.000000	0.033
0.00484							
-170.0	0.8	-24.2	2.0	-15.0	-30.5	0.000000	0.035
0.00504							
-165.0	0.9	-24.1	2.3	-14.7	-30.3	0.000000	0.036
0.00525							
-160.0	1.0	-24.0	2.6	-14.4	-30.1	0.000000	0.037
0.00548							
-155.0	1.1	-23.9	2.8	-14.2	-29.9	0.000000	0.039
0.00572							
-150.0	1.2	-23.8	3.1	-13.9	-29.7	0.000000	0.040
0.00597							
-145.0	1.3	-23.7	3.4	-13.6	-29.5	0.000000	0.042
0.00624							
-140.0	1.4	-23.6	3.7	-13.3	-29.3	0.000000	0.043
0.00653							
-135.0	1.5	-23.5	4.0	-13.0	-29.1	0.000000	0.045
0.00684							
-130.0	1.7	-23.3	4.3	-12.7	-28.8	0.000000	0.047
0.00718							
-125.0	1.8	-23.2	4.7	-12.3	-28.6	0.000000	0.049
0.00753							
-120.0	1.9	-23.1	5.0	-12.0	-28.4	0.000000	0.051
0.00792							
-115.0	2.0	-23.0	5.4	-11.6	-28.1	0.000000	0.053
0.00833							
-110.0	2.2	-22.8	5.8	-11.2	-27.9	0.000000	0.056
0.00878							
-105.0	2.3	-22.7	6.1	-10.9	-27.6	0.000000	0.058
0.00927							
-100.0	2.5	-22.5	6.5	-10.5	-27.3	0.000000	0.060
0.00979							
-95.0	2.6	-22.4	7.0	-10.0	-27.0	0.000000	0.063
0.01037							
-90.0	2.8	-22.2	7.4	-9.6	-26.8	0.000000	0.066
0.01099							
-85.0	2.9	-22.1	7.8	-9.2	-26.5	0.000000	0.069
0.01167							
-80.0	3.1	-21.9	8.3	-8.7	-26.2	0.000000	0.072
0.01241							
-75.0	3.3	-21.7	8.8	-8.2	-25.8	0.000000	0.075
0.01323							
-70.0	3.4	-21.6	9.3	-7.7	-25.5	0.000000	0.078
0.01412							
-65.0	3.6	-21.4	9.9	-7.1	-25.2	0.000000	0.081
0.01511							
-60.0	3.8	-21.2	10.4	-6.6	-24.8	0.000000	0.084
0.01620							
-55.0	4.0	-21.0	11.0	-6.0	-24.5	0.000000	0.087
0.01741							
-50.0	4.2	-20.8	11.7	-5.3	-24.1	0.000000	0.090
0.01876							
-45.0	4.4	-20.6	12.3	-4.7	-23.7	0.000000	0.092
0.02026							
-40.0	4.6	-20.4	13.0	-4.0	-23.3	0.000000	0.094

winter_normal-500.txt							
0.02195							
-35.0	4.8	-20.2	13.7	-3.3	-22.8	0.000000	0.095
0.02384							
-30.0	5.1	-19.9	14.5	-2.5	-22.4	0.000000	0.094
0.02597							
-25.0	5.3	-19.7	15.3	-1.7	-21.9	0.000000	0.092
0.02839							
-20.0	5.5	-19.5	16.1	-0.9	-21.3	0.000000	0.088
0.03114							
-15.0	5.8	-19.2	17.0	-0.0	-20.7	0.000000	0.080
0.03427							
-10.0	6.1	-18.9	17.9	0.9	-20.0	0.000000	0.069
0.03787							
-5.0	6.4	-18.6	18.8	1.8	-19.3	0.000000	0.055
0.04199							
0.0	6.7	-18.3	19.8	2.8	-18.5	0.000000	0.045
0.04676							
5.0	7.0	-18.0	20.9	3.9	-17.7	0.000000	0.075
0.05227							
10.0	7.4	-17.6	21.9	4.9	-16.8	0.000000	0.138
0.05864							
15.0	7.7	-17.3	23.0	6.0	-15.8	0.000000	0.235
0.06601							
20.0	8.1	-16.9	24.1	7.1	-14.7	0.000000	0.373
0.07446							
25.0	8.5	-16.5	25.9	8.9	-13.5	0.000000	0.563
0.08397							
30.0	8.9	-16.1	28.2	11.2	-12.2	0.000000	0.813
0.09425							
35.0	9.3	-15.7	30.5	13.5	-10.8	0.000000	1.121
0.10446							
40.0	9.6	-15.4	32.7	15.7	-9.4	0.000000	1.454
0.11280							
45.0	9.9	-15.1	34.3	17.3	-8.3	0.000000	1.736
0.11640							
50.0	10.1	-14.9	34.9	17.9	-7.8	0.000000	1.871
0.11245							
55.0	10.0	-15.0	34.3	17.3	-8.3	0.004624	1.816
0.10039							
60.0	9.9	-15.1	32.7	15.7	-9.4	0.008236	1.626
0.08297							
65.0	9.7	-15.3	30.5	13.5	-10.8	0.008657	1.408
0.06467							
70.0	9.5	-15.5	28.2	11.2	-12.2	0.008113	1.251
0.05056							
75.0	9.3	-15.7	25.9	8.9	-13.5	0.007386	1.198
0.04533							
80.0	9.2	-15.8	24.1	7.1	-14.7	0.006696	1.262
0.05056							
85.0	9.1	-15.9	26.3	9.3	-15.0	0.006091	1.431
0.06467							
90.0	9.1	-15.9	28.5	11.5	-13.6	0.005574	1.660
0.08297							
95.0	9.0	-16.0	30.1	13.1	-12.5	0.005133	1.860
0.10039							
100.0	8.9	-16.1	30.7	13.7	-12.1	0.004754	1.919
0.11245							
105.0	8.7	-16.3	30.1	13.1	-12.5	0.007229	1.781
0.11640							
110.0	8.4	-16.6	28.5	11.5	-13.6	0.009144	1.493
0.11280							
115.0	8.0	-17.0	26.3	9.3	-15.0	0.009152	1.152
0.10446							
120.0	7.7	-17.3	24.0	7.0	-16.4	0.008602	0.837
0.09425							
125.0	7.3	-17.7	21.7	4.7	-17.7	0.007965	0.579
0.08397							
130.0	7.0	-18.0	19.9	2.9	-19.0	0.007370	0.385
0.07446							
135.0	6.7	-18.3	18.8	1.8	-20.0	0.006845	0.243
0.06601							
140.0	6.4	-18.6	17.8	0.8	-21.0	0.006388	0.144
0.05864							
145.0	6.1	-18.9	16.7	-0.3	-21.9	0.005990	0.078
0.05227							
150.0	5.8	-19.2	15.7	-1.3	-22.8	0.005641	0.045
0.04676							
155.0	5.5	-19.5	14.7	-2.3	-23.5	0.005334	0.054
0.04199							
160.0	5.2	-19.8	13.7	-3.3	-24.2	0.005061	0.069
0.03787							
165.0	5.0	-20.0	12.8	-4.2	-24.9	0.004818	0.080

winter_normal-500.txt							
0.03427							
170.0	4.8	-20.2	11.9	-5.1	-25.5	0.004598	0.088
0.03114							
175.0	4.5	-20.5	11.1	-5.9	-25.8	0.004400	0.093
0.02839							
180.0	4.3	-20.7	10.3	-6.7	-26.2	0.004220	0.095
0.02597							
185.0	4.1	-20.9	9.5	-7.5	-26.5	0.004055	0.095
0.02384							
190.0	3.9	-21.1	8.8	-8.2	-26.8	0.003904	0.094
0.02195							
195.0	3.7	-21.3	8.1	-8.9	-27.0	0.003765	0.093
0.02026							
200.0	3.5	-21.5	7.5	-9.5	-27.3	0.003636	0.090
0.01876							
205.0	3.4	-21.6	6.8	-10.2	-27.6	0.003517	0.087
0.01741							
210.0	3.2	-21.8	6.3	-10.7	-27.9	0.003406	0.085
0.01620							
215.0	3.0	-22.0	5.7	-11.3	-28.1	0.003302	0.081
0.01511							
220.0	2.9	-22.1	5.1	-11.9	-28.4	0.003205	0.078
0.01412							
225.0	2.7	-22.3	4.7	-12.3	-28.6	0.003114	0.075
0.01323							
230.0	2.6	-22.4	4.3	-12.7	-28.8	0.003029	0.072
0.01241							
235.0	2.4	-22.6	4.0	-13.0	-29.1	0.002949	0.069
0.01167							
240.0	2.3	-22.7	3.7	-13.3	-29.3	0.002873	0.066
0.01099							
245.0	2.1	-22.9	3.4	-13.6	-29.5	0.002801	0.064
0.01037							
250.0	2.0	-23.0	3.1	-13.9	-29.7	0.002733	0.061
0.00979							
255.0	1.9	-23.1	2.8	-14.2	-29.9	0.002669	0.058
0.00927							
260.0	1.7	-23.3	2.6	-14.4	-30.1	0.002607	0.056
0.00878							
265.0	1.6	-23.4	2.3	-14.7	-30.3	0.002549	0.054
0.00833							
270.0	1.5	-23.5	2.0	-15.0	-30.5	0.002494	0.051
0.00792							
275.0	1.4	-23.6	1.8	-15.2	-30.7	0.002441	0.049
0.00753							
280.0	1.3	-23.7	1.5	-15.5	-30.9	0.002390	0.047
0.00718							
285.0	1.1	-23.9	1.3	-15.7	-31.1	0.002342	0.046
0.00684							
290.0	1.0	-24.0	1.1	-15.9	-31.3	0.002296	0.044
0.00653							
295.0	0.9	-24.1	0.8	-16.2	-31.4	0.002252	0.042
0.00624							
300.0	0.8	-24.2	0.6	-16.4	-31.6	0.002209	0.041
0.00597							
305.0	0.7	-24.3	0.4	-16.6	-31.8	0.002169	0.039
0.00572							
310.0	0.6	-24.4	0.2	-16.8	-31.9	0.002130	0.038
0.00548							
315.0	0.5	-24.5	-0.0	-17.0	-32.1	0.002092	0.036
0.00525							
320.0	0.4	-24.6	-0.2	-17.2	-32.3	0.002056	0.035
0.00504							
325.0	0.3	-24.7	-0.4	-17.4	-32.4	0.002021	0.034
0.00484							
330.0	0.2	-24.8	-0.6	-17.6	-32.6	0.001987	0.032
0.00466							
335.0	0.1	-24.9	-0.8	-17.8	-32.7	0.001955	0.031
0.00448							
340.0	0.0	-25.0	-1.0	-18.0	-32.9	0.001924	0.030
0.00431							
345.0	-0.1	-25.1	-1.1	-18.1	-33.0	0.001893	0.029
0.00416							
350.0	-0.1	-25.1	-1.3	-18.3	-33.2	0.001864	0.028
0.00401							
355.0	-0.2	-25.2	-1.5	-18.5	-33.3	0.001836	0.027
0.00387							
360.0	-0.3	-25.3	-1.7	-18.7	-33.4	0.001809	0.027
0.00373							
365.0	-0.4	-25.4	-1.8	-18.8	-33.6	0.001782	0.026
0.00361							
370.0	-0.5	-25.5	-2.0	-19.0	-33.7	0.001756	0.025

winter_normal-500.txt							
0.00349							
375.0	-0.6	-25.6	-2.1	-19.1	-33.9	0.001732	0.024
0.00337							
380.0	-0.6	-25.6	-2.3	-19.3	-34.0	0.001708	0.023
0.00326							
385.0	-0.7	-25.7	-2.4	-19.4	-34.1	0.001684	0.023
0.00316							
390.0	-0.8	-25.8	-2.6	-19.6	-34.2	0.001661	0.022
0.00306							
395.0	-0.9	-25.9	-2.7	-19.7	-34.4	0.001639	0.021
0.00296							
400.0	-0.9	-25.9	-2.9	-19.9	-34.5	0.001618	0.021
0.00287							
405.0	-1.0	-26.0	-3.0	-20.0	-34.6	0.001597	0.020
0.00279							
410.0	-1.1	-26.1	-3.2	-20.2	-34.7	0.001577	0.020
0.00271							
415.0	-1.2	-26.2	-3.3	-20.3	-34.9	0.001557	0.019
0.00263							
420.0	-1.2	-26.2	-3.4	-20.4	-35.0	0.001538	0.019
0.00255							
425.0	-1.3	-26.3	-3.6	-20.6	-35.1	0.001519	0.018
0.00248							
430.0	-1.4	-26.4	-3.7	-20.7	-35.2	0.001501	0.018
0.00241							
435.0	-1.4	-26.4	-3.8	-20.8	-35.3	0.001484	0.017
0.00234							
440.0	-1.5	-26.5	-4.0	-21.0	-35.4	0.001466	0.017
0.00228							
445.0	-1.6	-26.6	-4.1	-21.1	-35.5	0.001449	0.016
0.00222							
450.0	-1.6	-26.6	-4.2	-21.2	-35.6	0.001433	0.016
0.00216							
455.0	-1.7	-26.7	-4.3	-21.3	-35.8	0.001417	0.015
0.00210							
460.0	-1.8	-26.8	-4.4	-21.4	-36.0	0.001401	0.015
0.00205							
465.0	-1.8	-26.8	-4.6	-21.6	-36.2	0.001386	0.015
0.00200							
470.0	-1.9	-26.9	-4.7	-21.7	-36.4	0.001371	0.014
0.00195							
475.0	-1.9	-26.9	-4.8	-21.8	-36.6	0.001357	0.014
0.00190							
480.0	-2.0	-27.0	-4.9	-21.9	-36.8	0.001342	0.014
0.00185							
485.0	-2.1	-27.1	-5.0	-22.0	-37.0	0.001328	0.013
0.00181							
490.0	-2.1	-27.1	-5.1	-22.1	-37.2	0.001315	0.013
0.00177							
495.0	-2.2	-27.2	-5.2	-22.2	-37.4	0.001301	0.013
0.00172							
500.0	-2.2	-27.2	-5.3	-22.3	-37.6	0.001288	0.012
0.00579							
1							

winter_summer_STE.txt							
0.00165							
-445.0	-3.0	-28.0	-6.2	-23.2	-39.3	0.000000	0.008
0.00168							
-440.0	-3.0	-28.0	-6.1	-23.1	-39.1	0.000000	0.009
0.00171							
-435.0	-3.0	-28.0	-6.0	-23.0	-38.9	0.000000	0.009
0.00175							
-430.0	-2.9	-27.9	-5.9	-22.9	-38.7	0.000000	0.009
0.00178							
-425.0	-2.9	-27.9	-5.8	-22.8	-38.6	0.000000	0.009
0.00182							
-420.0	-2.8	-27.8	-5.7	-22.7	-38.4	0.000000	0.009
0.00185							
-415.0	-2.7	-27.7	-5.6	-22.6	-38.2	0.000000	0.009
0.00189							
-410.0	-2.7	-27.7	-5.5	-22.5	-38.0	0.000000	0.010
0.00193							
-405.0	-2.6	-27.6	-5.4	-22.4	-37.8	0.000000	0.010
0.00197							
-400.0	-2.6	-27.6	-5.3	-22.3	-37.6	0.000000	0.010
0.00201							
-395.0	-2.5	-27.5	-5.2	-22.2	-37.4	0.000000	0.010
0.00206							
-390.0	-2.5	-27.5	-5.1	-22.1	-37.2	0.000000	0.010
0.00210							
-385.0	-2.4	-27.4	-5.0	-22.0	-37.0	0.000000	0.011
0.00215							
-380.0	-2.4	-27.4	-4.9	-21.9	-36.8	0.000000	0.011
0.00219							
-375.0	-2.3	-27.3	-4.8	-21.8	-36.6	0.000000	0.011
0.00224							
-370.0	-2.3	-27.3	-4.7	-21.7	-36.4	0.000000	0.011
0.00229							
-365.0	-2.2	-27.2	-4.6	-21.6	-36.2	0.000000	0.012
0.00234							
-360.0	-2.1	-27.1	-4.4	-21.4	-36.0	0.000000	0.012
0.00240							
-355.0	-2.1	-27.1	-4.3	-21.3	-35.8	0.000000	0.012
0.00245							
-350.0	-2.0	-27.0	-4.2	-21.2	-35.6	0.000000	0.012
0.00251							
-345.0	-2.0	-27.0	-4.1	-21.1	-35.5	0.000000	0.013
0.00257							
-340.0	-1.9	-26.9	-4.0	-21.0	-35.4	0.000000	0.013
0.00263							
-335.0	-1.9	-26.9	-3.8	-20.8	-35.3	0.000000	0.013
0.00270							
-330.0	-1.8	-26.8	-3.7	-20.7	-35.2	0.000000	0.014
0.00277							
-325.0	-1.7	-26.7	-3.6	-20.6	-35.1	0.000000	0.014
0.00284							
-320.0	-1.7	-26.7	-3.4	-20.4	-35.0	0.000000	0.014
0.00291							
-315.0	-1.6	-26.6	-3.3	-20.3	-34.9	0.000000	0.015
0.00298							
-310.0	-1.5	-26.5	-3.2	-20.2	-34.7	0.000000	0.015
0.00306							
-305.0	-1.5	-26.5	-3.0	-20.0	-34.6	0.000000	0.015
0.00314							
-300.0	-1.4	-26.4	-2.9	-19.9	-34.5	0.000000	0.016
0.00323							
-295.0	-1.3	-26.3	-2.7	-19.7	-34.4	0.000000	0.016
0.00331							
-290.0	-1.3	-26.3	-2.6	-19.6	-34.2	0.000000	0.017
0.00340							
-285.0	-1.2	-26.2	-2.4	-19.4	-34.1	0.000000	0.017
0.00350							
-280.0	-1.1	-26.1	-2.3	-19.3	-34.0	0.000000	0.018
0.00360							
-275.0	-1.1	-26.1	-2.1	-19.1	-33.9	0.000000	0.018
0.00370							
-270.0	-1.0	-26.0	-2.0	-19.0	-33.7	0.000000	0.018
0.00381							
-265.0	-0.9	-25.9	-1.8	-18.8	-33.6	0.000000	0.019
0.00392							
-260.0	-0.8	-25.8	-1.7	-18.7	-33.4	0.000000	0.020
0.00404							
-255.0	-0.8	-25.8	-1.5	-18.5	-33.3	0.000000	0.020
0.00416							
-250.0	-0.7	-25.7	-1.3	-18.3	-33.2	0.000000	0.021
0.00429							
-245.0	-0.6	-25.6	-1.1	-18.1	-33.0	0.000000	0.021

winter_summer_STE.txt							
0.00443							
-240.0	-0.5	-25.5	-1.0	-18.0	-32.9	0.000000	0.022
0.00457							
-235.0	-0.4	-25.4	-0.8	-17.8	-32.7	0.000000	0.023
0.00471							
-230.0	-0.4	-25.4	-0.6	-17.6	-32.6	0.000000	0.023
0.00487							
-225.0	-0.3	-25.3	-0.4	-17.4	-32.4	0.000000	0.024
0.00503							
-220.0	-0.2	-25.2	-0.2	-17.2	-32.3	0.000000	0.025
0.00520							
-215.0	-0.1	-25.1	-0.0	-17.0	-32.1	0.000000	0.026
0.00538							
-210.0	-0.0	-25.0	0.2	-16.8	-31.9	0.000000	0.026
0.00557							
-205.0	0.1	-24.9	0.4	-16.6	-31.8	0.000000	0.027
0.00577							
-200.0	0.2	-24.8	0.6	-16.4	-31.6	0.000000	0.028
0.00598							
-195.0	0.3	-24.7	0.8	-16.2	-31.4	0.000000	0.029
0.00621							
-190.0	0.4	-24.6	1.1	-15.9	-31.3	0.000000	0.030
0.00644							
-185.0	0.5	-24.5	1.3	-15.7	-31.1	0.000000	0.031
0.00669							
-180.0	0.6	-24.4	1.5	-15.5	-30.9	0.000000	0.032
0.00695							
-175.0	0.7	-24.3	1.8	-15.2	-30.7	0.000000	0.033
0.00723							
-170.0	0.8	-24.2	2.0	-15.0	-30.5	0.000000	0.035
0.00753							
-165.0	0.9	-24.1	2.3	-14.7	-30.3	0.000000	0.036
0.00784							
-160.0	1.0	-24.0	2.6	-14.4	-30.1	0.000000	0.037
0.00817							
-155.0	1.1	-23.9	2.8	-14.2	-29.9	0.000000	0.039
0.00853							
-150.0	1.2	-23.8	3.1	-13.9	-29.7	0.000000	0.040
0.00891							
-145.0	1.3	-23.7	3.4	-13.6	-29.5	0.000000	0.042
0.00931							
-140.0	1.4	-23.6	3.7	-13.3	-29.3	0.000000	0.043
0.00975							
-135.0	1.5	-23.5	4.0	-13.0	-29.1	0.000000	0.045
0.01021							
-130.0	1.7	-23.3	4.3	-12.7	-28.8	0.000000	0.047
0.01071							
-125.0	1.8	-23.2	4.7	-12.3	-28.6	0.000000	0.049
0.01124							
-120.0	1.9	-23.1	5.0	-12.0	-28.4	0.000000	0.051
0.01182							
-115.0	2.0	-23.0	5.4	-11.6	-28.1	0.000000	0.053
0.01244							
-110.0	2.2	-22.8	5.8	-11.2	-27.9	0.000000	0.056
0.01311							
-105.0	2.3	-22.7	6.1	-10.9	-27.6	0.000000	0.058
0.01383							
-100.0	2.5	-22.5	6.5	-10.5	-27.3	0.000000	0.060
0.01462							
-95.0	2.6	-22.4	7.0	-10.0	-27.0	0.000000	0.063
0.01547							
-90.0	2.8	-22.2	7.4	-9.6	-26.8	0.000000	0.066
0.01640							
-85.0	2.9	-22.1	7.8	-9.2	-26.5	0.000000	0.069
0.01741							
-80.0	3.1	-21.9	8.3	-8.7	-26.2	0.000000	0.072
0.01852							
-75.0	3.3	-21.7	8.8	-8.2	-25.8	0.000000	0.075
0.01974							
-70.0	3.4	-21.6	9.3	-7.7	-25.5	0.000000	0.078
0.02108							
-65.0	3.6	-21.4	9.9	-7.1	-25.2	0.000000	0.081
0.02255							
-60.0	3.8	-21.2	10.4	-6.6	-24.8	0.000000	0.084
0.02418							
-55.0	4.0	-21.0	11.0	-6.0	-24.5	0.000000	0.087
0.02599							
-50.0	4.2	-20.8	11.7	-5.3	-24.1	0.000000	0.090
0.02800							
-45.0	4.4	-20.6	12.3	-4.7	-23.7	0.000000	0.092
0.03024							
-40.0	4.6	-20.4	13.0	-4.0	-23.3	0.000000	0.094

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0.03276							
-35.0	4.8	-20.2	13.7	-3.3	-22.8	0.000000	0.095
0.03558							
-30.0	5.1	-19.9	14.5	-2.5	-22.4	0.000000	0.094
0.03877							
-25.0	5.3	-19.7	15.3	-1.7	-21.9	0.000000	0.092
0.04237							
-20.0	5.5	-19.5	16.1	-0.9	-21.3	0.000000	0.088
0.04647							
-15.0	5.8	-19.2	17.0	-0.0	-20.7	0.000000	0.080
0.05115							
-10.0	6.1	-18.9	17.9	0.9	-20.0	0.000000	0.069
0.05652							
-5.0	6.4	-18.6	18.8	1.8	-19.3	0.000000	0.055
0.06268							
0.0	6.7	-18.3	19.8	2.8	-18.5	0.000000	0.045
0.06979							
5.0	7.0	-18.0	20.9	3.9	-17.7	0.000000	0.075
0.07801							
10.0	7.4	-17.6	21.9	4.9	-16.8	0.000000	0.138
0.08753							
15.0	7.7	-17.3	23.0	6.0	-15.8	0.000000	0.235
0.09852							
20.0	8.1	-16.9	24.1	7.1	-14.7	0.000000	0.373
0.11113							
25.0	8.5	-16.5	25.9	8.9	-13.5	0.000000	0.563
0.12532							
30.0	8.9	-16.1	28.2	11.2	-12.2	0.000000	0.813
0.14067							
35.0	9.3	-15.7	30.5	13.5	-10.8	0.000000	1.121
0.15592							
40.0	9.6	-15.4	32.7	15.7	-9.4	0.000000	1.454
0.16836							
45.0	9.9	-15.1	34.3	17.3	-8.3	0.000000	1.736
0.17373							
50.0	10.1	-14.9	34.9	17.9	-7.8	0.000000	1.871
0.16783							
55.0	10.0	-15.0	34.3	17.3	-8.3	0.004624	1.816
0.14984							
60.0	9.9	-15.1	32.7	15.7	-9.4	0.008236	1.626
0.12383							
65.0	9.7	-15.3	30.5	13.5	-10.8	0.008657	1.408
0.09653							
70.0	9.5	-15.5	28.2	11.2	-12.2	0.008113	1.251
0.07546							
75.0	9.3	-15.7	25.9	8.9	-13.5	0.007386	1.198
0.06766							
80.0	9.2	-15.8	24.1	7.1	-14.7	0.006696	1.262
0.07546							
85.0	9.1	-15.9	26.3	9.3	-15.0	0.006091	1.431
0.09653							
90.0	9.1	-15.9	28.5	11.5	-13.6	0.005574	1.660
0.12383							
95.0	9.0	-16.0	30.1	13.1	-12.5	0.005133	1.860
0.14984							
100.0	8.9	-16.1	30.7	13.7	-12.1	0.004754	1.919
0.16783							
105.0	8.7	-16.3	30.1	13.1	-12.5	0.007229	1.781
0.17373							
110.0	8.4	-16.6	28.5	11.5	-13.6	0.009144	1.493
0.16836							
115.0	8.0	-17.0	26.3	9.3	-15.0	0.009152	1.152
0.15592							
120.0	7.7	-17.3	24.0	7.0	-16.4	0.008602	0.837
0.14067							
125.0	7.3	-17.7	21.7	4.7	-17.7	0.007965	0.579
0.12532							
130.0	7.0	-18.0	19.9	2.9	-19.0	0.007370	0.385
0.11113							
135.0	6.7	-18.3	18.8	1.8	-20.0	0.006845	0.243
0.09852							
140.0	6.4	-18.6	17.8	0.8	-21.0	0.006388	0.144
0.08753							
145.0	6.1	-18.9	16.7	-0.3	-21.9	0.005990	0.078
0.07801							
150.0	5.8	-19.2	15.7	-1.3	-22.8	0.005641	0.045
0.06979							
155.0	5.5	-19.5	14.7	-2.3	-23.5	0.005334	0.054
0.06268							
160.0	5.2	-19.8	13.7	-3.3	-24.2	0.005061	0.069
0.05652							
165.0	5.0	-20.0	12.8	-4.2	-24.9	0.004818	0.080

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0.05115							
170.0	4.8	-20.2	11.9	-5.1	-25.5	0.004598	0.088
0.04647							
175.0	4.5	-20.5	11.1	-5.9	-25.8	0.004400	0.093
0.04237							
180.0	4.3	-20.7	10.3	-6.7	-26.2	0.004220	0.095
0.03877							
185.0	4.1	-20.9	9.5	-7.5	-26.5	0.004055	0.095
0.03558							
190.0	3.9	-21.1	8.8	-8.2	-26.8	0.003904	0.094
0.03276							
195.0	3.7	-21.3	8.1	-8.9	-27.0	0.003765	0.093
0.03024							
200.0	3.5	-21.5	7.5	-9.5	-27.3	0.003636	0.090
0.02800							
205.0	3.4	-21.6	6.8	-10.2	-27.6	0.003517	0.087
0.02599							
210.0	3.2	-21.8	6.3	-10.7	-27.9	0.003406	0.085
0.02418							
215.0	3.0	-22.0	5.7	-11.3	-28.1	0.003302	0.081
0.02255							
220.0	2.9	-22.1	5.1	-11.9	-28.4	0.003205	0.078
0.02108							
225.0	2.7	-22.3	4.7	-12.3	-28.6	0.003114	0.075
0.01974							
230.0	2.6	-22.4	4.3	-12.7	-28.8	0.003029	0.072
0.01852							
235.0	2.4	-22.6	4.0	-13.0	-29.1	0.002949	0.069
0.01741							
240.0	2.3	-22.7	3.7	-13.3	-29.3	0.002873	0.066
0.01640							
245.0	2.1	-22.9	3.4	-13.6	-29.5	0.002801	0.064
0.01547							
250.0	2.0	-23.0	3.1	-13.9	-29.7	0.002733	0.061
0.01462							
255.0	1.9	-23.1	2.8	-14.2	-29.9	0.002669	0.058
0.01383							
260.0	1.7	-23.3	2.6	-14.4	-30.1	0.002607	0.056
0.01311							
265.0	1.6	-23.4	2.3	-14.7	-30.3	0.002549	0.054
0.01244							
270.0	1.5	-23.5	2.0	-15.0	-30.5	0.002494	0.051
0.01182							
275.0	1.4	-23.6	1.8	-15.2	-30.7	0.002441	0.049
0.01124							
280.0	1.3	-23.7	1.5	-15.5	-30.9	0.002390	0.047
0.01071							
285.0	1.1	-23.9	1.3	-15.7	-31.1	0.002342	0.046
0.01021							
290.0	1.0	-24.0	1.1	-15.9	-31.3	0.002296	0.044
0.00975							
295.0	0.9	-24.1	0.8	-16.2	-31.4	0.002252	0.042
0.00931							
300.0	0.8	-24.2	0.6	-16.4	-31.6	0.002209	0.041
0.00891							
305.0	0.7	-24.3	0.4	-16.6	-31.8	0.002169	0.039
0.00853							
310.0	0.6	-24.4	0.2	-16.8	-31.9	0.002130	0.038
0.00817							
315.0	0.5	-24.5	-0.0	-17.0	-32.1	0.002092	0.036
0.00784							
320.0	0.4	-24.6	-0.2	-17.2	-32.3	0.002056	0.035
0.00753							
325.0	0.3	-24.7	-0.4	-17.4	-32.4	0.002021	0.034
0.00723							
330.0	0.2	-24.8	-0.6	-17.6	-32.6	0.001987	0.032
0.00695							
335.0	0.1	-24.9	-0.8	-17.8	-32.7	0.001955	0.031
0.00669							
340.0	0.0	-25.0	-1.0	-18.0	-32.9	0.001924	0.030
0.00644							
345.0	-0.1	-25.1	-1.1	-18.1	-33.0	0.001893	0.029
0.00621							
350.0	-0.1	-25.1	-1.3	-18.3	-33.2	0.001864	0.028
0.00598							
355.0	-0.2	-25.2	-1.5	-18.5	-33.3	0.001836	0.027
0.00577							
360.0	-0.3	-25.3	-1.7	-18.7	-33.4	0.001809	0.027
0.00557							
365.0	-0.4	-25.4	-1.8	-18.8	-33.6	0.001782	0.026
0.00538							
370.0	-0.5	-25.5	-2.0	-19.0	-33.7	0.001756	0.025

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0.00520							
375.0	-0.6	-25.6	-2.1	-19.1	-33.9	0.001732	0.024
0.00503							
380.0	-0.6	-25.6	-2.3	-19.3	-34.0	0.001708	0.023
0.00487							
385.0	-0.7	-25.7	-2.4	-19.4	-34.1	0.001684	0.023
0.00471							
390.0	-0.8	-25.8	-2.6	-19.6	-34.2	0.001661	0.022
0.00457							
395.0	-0.9	-25.9	-2.7	-19.7	-34.4	0.001639	0.021
0.00443							
400.0	-0.9	-25.9	-2.9	-19.9	-34.5	0.001618	0.021
0.00429							
405.0	-1.0	-26.0	-3.0	-20.0	-34.6	0.001597	0.020
0.00416							
410.0	-1.1	-26.1	-3.2	-20.2	-34.7	0.001577	0.020
0.00404							
415.0	-1.2	-26.2	-3.3	-20.3	-34.9	0.001557	0.019
0.00392							
420.0	-1.2	-26.2	-3.4	-20.4	-35.0	0.001538	0.019
0.00381							
425.0	-1.3	-26.3	-3.6	-20.6	-35.1	0.001519	0.018
0.00370							
430.0	-1.4	-26.4	-3.7	-20.7	-35.2	0.001501	0.018
0.00360							
435.0	-1.4	-26.4	-3.8	-20.8	-35.3	0.001484	0.017
0.00350							
440.0	-1.5	-26.5	-4.0	-21.0	-35.4	0.001466	0.017
0.00340							
445.0	-1.6	-26.6	-4.1	-21.1	-35.5	0.001449	0.016
0.00331							
450.0	-1.6	-26.6	-4.2	-21.2	-35.6	0.001433	0.016
0.00323							
455.0	-1.7	-26.7	-4.3	-21.3	-35.8	0.001417	0.015
0.00314							
460.0	-1.8	-26.8	-4.4	-21.4	-36.0	0.001401	0.015
0.00306							
465.0	-1.8	-26.8	-4.6	-21.6	-36.2	0.001386	0.015
0.00298							
470.0	-1.9	-26.9	-4.7	-21.7	-36.4	0.001371	0.014
0.00291							
475.0	-1.9	-26.9	-4.8	-21.8	-36.6	0.001357	0.014
0.00284							
480.0	-2.0	-27.0	-4.9	-21.9	-36.8	0.001342	0.014
0.00277							
485.0	-2.1	-27.1	-5.0	-22.0	-37.0	0.001328	0.013
0.00270							
490.0	-2.1	-27.1	-5.1	-22.1	-37.2	0.001315	0.013
0.00263							
495.0	-2.2	-27.2	-5.2	-22.2	-37.4	0.001301	0.013
0.00257							
500.0	-2.2	-27.2	-5.3	-22.3	-37.6	0.001288	0.012
0.00251							
1							