

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 1%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 0.56

6.7 Inches

BiolInitiative ft. 45.00

540.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	3245.32	10.25	1.93	20.25	0.49	30.25	0.22
0.50	811.33	10.50	1.84	20.50	0.48	30.50	0.22
0.75	360.59	10.75	1.76	20.75	0.47	30.75	0.21
1.00	202.83	11.00	1.68	21.00	0.46	31.00	0.21
1.25	129.81	11.25	1.60	21.25	0.45	31.25	0.21
1.50	90.15	11.50	1.53	21.50	0.44	31.50	0.20
1.75	66.23	11.75	1.47	21.75	0.43	31.75	0.20
2.00	50.71	12.00	1.41	22.00	0.42	32.00	0.20
2.25	40.07	12.25	1.35	22.25	0.41	32.25	0.20
2.50	32.45	12.50	1.30	22.50	0.40	32.50	0.19
2.75	26.82	12.75	1.25	22.75	0.39	32.75	0.19
3.00	22.54	13.00	1.20	23.00	0.38	33.00	0.19
3.25	19.20	13.25	1.16	23.25	0.38	33.25	0.18
3.50	16.56	13.50	1.11	23.50	0.37	33.50	0.18
3.75	14.42	13.75	1.07	23.75	0.36	33.75	0.18
4.00	12.68	14.00	1.03	24.00	0.35	34.00	0.18
4.25	11.23	14.25	1.00	24.25	0.34	34.25	0.17
4.50	10.02	14.50	0.96	24.50	0.34	34.50	0.17
4.75	8.99	14.75	0.93	24.75	0.33	34.75	0.17
5.00	8.11	15.00	0.90	25.00	0.32	35.00	0.17
5.25	7.36	15.25	0.87	25.25	0.32	35.25	0.16
5.50	6.71	15.50	0.84	25.50	0.31	35.50	0.16
5.75	6.13	15.75	0.82	25.75	0.31	35.75	0.16
6.00	5.63	16.00	0.79	26.00	0.30	36.00	0.16
6.25	5.19	16.25	0.77	26.25	0.29	36.25	0.15
6.50	4.80	16.50	0.75	26.50	0.29	36.50	0.15
6.75	4.45	16.75	0.72	26.75	0.28	36.75	0.15
7.00	4.14	17.00	0.70	27.00	0.28	37.00	0.15
7.25	3.86	17.25	0.68	27.25	0.27	37.25	0.15
7.50	3.61	17.50	0.66	27.50	0.27	37.50	0.14
7.75	3.38	17.75	0.64	27.75	0.26	37.75	0.14
8.00	3.17	18.00	0.63	28.00	0.26	38.00	0.14
8.25	2.98	18.25	0.61	28.25	0.25	38.25	0.14
8.50	2.81	18.50	0.59	28.50	0.25	38.50	0.14
8.75	2.65	18.75	0.58	28.75	0.25	38.75	0.14
9.00	2.50	19.00	0.56	29.00	0.24	39.00	0.13
9.25	2.37	19.25	0.55	29.25	0.24	39.25	0.13
9.50	2.25	19.50	0.53	29.50	0.23	39.50	0.13
9.75	2.13	19.75	0.52	29.75	0.23	39.75	0.13
10.00	2.03	20.00	0.51	30.00	0.23	40.00	0.13

Notes:

- 1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi)(R^2)$$

S = Power Density uW/cm<sup>2</sup>  
 EIRP = 1.64\*ERP  
 pi() = 3.1459  
 R = Distance to device  
 TA = Time average  
 %Ref = Percent reflections
- 2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- 4) Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- 5) TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- 6) Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

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Meters 1 Electric Meter

Time Avg: 1%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 0.56

6.68 Inches

BioInitiative ft. 45.00

540.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	0.13	54.25	0.07	68.25	0.04	82.25	0.03
40.50	0.12	54.50	0.07	68.50	0.04	82.50	0.03
40.75	0.12	54.75	0.07	68.75	0.04	82.75	0.03
41.00	0.12	55.00	0.07	69.00	0.04	83.00	0.03
41.25	0.12	55.25	0.07	69.25	0.04	83.25	0.03
41.50	0.12	55.50	0.07	69.50	0.04	83.50	0.03
41.75	0.12	55.75	0.07	69.75	0.04	83.75	0.03
42.00	0.11	56.00	0.06	70.00	0.04	84.00	0.03
42.25	0.11	56.25	0.06	70.25	0.04	84.25	0.03
42.50	0.11	56.50	0.06	70.50	0.04	84.50	0.03
42.75	0.11	56.75	0.06	70.75	0.04	84.75	0.03
43.00	0.11	57.00	0.06	71.00	0.04	85.00	0.03
43.25	0.11	57.25	0.06	71.25	0.04	85.25	0.03
43.50	0.11	57.50	0.06	71.50	0.04	85.50	0.03
43.75	0.11	57.75	0.06	71.75	0.04	85.75	0.03
44.00	0.10	58.00	0.06	72.00	0.04	86.00	0.03
44.25	0.10	58.25	0.06	72.25	0.04	86.25	0.03
44.50	0.10	58.50	0.06	72.50	0.04	86.50	0.03
44.75	0.10	58.75	0.06	72.75	0.04	86.75	0.03
45.00	0.10	59.00	0.06	73.00	0.04	87.00	0.03
45.25	0.10	59.25	0.06	73.25	0.04	87.25	0.03
45.50	0.10	59.50	0.06	73.50	0.04	87.50	0.03
45.75	0.10	59.75	0.06	73.75	0.04	87.75	0.03
46.00	0.10	60.00	0.06	74.00	0.04	88.00	0.03
46.25	0.09	60.25	0.06	74.25	0.04	88.25	0.03
46.50	0.09	60.50	0.06	74.50	0.04	88.50	0.03
46.75	0.09	60.75	0.05	74.75	0.04	88.75	0.03
47.00	0.09	61.00	0.05	75.00	0.04	89.00	0.03
47.25	0.09	61.25	0.05	75.25	0.04	89.25	0.03
47.50	0.09	61.50	0.05	75.50	0.04	89.50	0.03
47.75	0.09	61.75	0.05	75.75	0.04	89.75	0.03
48.00	0.09	62.00	0.05	76.00	0.04	90.00	0.03
48.25	0.09	62.25	0.05	76.25	0.03	90.25	0.02
48.50	0.09	62.50	0.05	76.50	0.03	90.50	0.02
48.75	0.09	62.75	0.05	76.75	0.03	90.75	0.02
49.00	0.08	63.00	0.05	77.00	0.03	91.00	0.02
49.25	0.08	63.25	0.05	77.25	0.03	91.25	0.02
49.50	0.08	63.50	0.05	77.50	0.03	91.50	0.02
49.75	0.08	63.75	0.05	77.75	0.03	91.75	0.02
50.00	0.08	64.00	0.05	78.00	0.03	92.00	0.02
50.25	0.08	64.25	0.05	78.25	0.03	92.25	0.02
50.50	0.08	64.50	0.05	78.50	0.03	92.50	0.02
50.75	0.08	64.75	0.05	78.75	0.03	92.75	0.02
51.00	0.08	65.00	0.05	79.00	0.03	93.00	0.02
51.25	0.08	65.25	0.05	79.25	0.03	93.25	0.02
51.50	0.08	65.50	0.05	79.50	0.03	93.50	0.02
51.75	0.08	65.75	0.05	79.75	0.03	93.75	0.02
52.00	0.08	66.00	0.05	80.00	0.03	94.00	0.02
52.25	0.07	66.25	0.05	80.25	0.03	94.25	0.02
52.50	0.07	66.50	0.05	80.50	0.03	94.50	0.02
52.75	0.07	66.75	0.05	80.75	0.03	94.75	0.02
53.00	0.07	67.00	0.05	81.00	0.03	95.00	0.02
53.25	0.07	67.25	0.04	81.25	0.03	95.25	0.02
53.50	0.07	67.50	0.04	81.50	0.03	95.50	0.02
53.75	0.07	67.75	0.04	81.75	0.03	95.75	0.02
54.00	0.07	68.00	0.04	82.00	0.03	96.00	0.02

Table 4 – 1%

# SMART Meter Power Density Computer Modeling

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Meters 1 Electric Meter

Time Avg: 10%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 1.76 21.1 Inches

BioInitiative ft. 142.50 1710.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	32453.20	10.25	19.31	20.25	4.95	30.25	2.22
0.50	8113.30	10.50	18.40	20.50	4.83	30.50	2.18
0.75	3605.91	10.75	17.55	20.75	4.71	30.75	2.15
1.00	2028.33	11.00	16.76	21.00	4.60	31.00	2.11
1.25	1298.13	11.25	16.03	21.25	4.49	31.25	2.08
1.50	901.48	11.50	15.34	21.50	4.39	31.50	2.04
1.75	662.31	11.75	14.69	21.75	4.29	31.75	2.01
2.00	507.08	12.00	14.09	22.00	4.19	32.00	1.98
2.25	400.66	12.25	13.52	22.25	4.10	32.25	1.95
2.50	324.53	12.50	12.98	22.50	4.01	32.50	1.92
2.75	268.21	12.75	12.48	22.75	3.92	32.75	1.89
3.00	225.37	13.00	12.00	23.00	3.83	33.00	1.86
3.25	192.03	13.25	11.55	23.25	3.75	33.25	1.83
3.50	165.58	13.50	11.13	23.50	3.67	33.50	1.81
3.75	144.24	13.75	10.73	23.75	3.60	33.75	1.78
4.00	126.77	14.00	10.35	24.00	3.52	34.00	1.75
4.25	112.29	14.25	9.99	24.25	3.45	34.25	1.73
4.50	100.16	14.50	9.65	24.50	3.38	34.50	1.70
4.75	89.90	14.75	9.32	24.75	3.31	34.75	1.68
5.00	81.13	15.00	9.01	25.00	3.25	35.00	1.66
5.25	73.59	15.25	8.72	25.25	3.18	35.25	1.63
5.50	67.05	15.50	8.44	25.50	3.12	35.50	1.61
5.75	61.35	15.75	8.18	25.75	3.06	35.75	1.59
6.00	56.34	16.00	7.92	26.00	3.00	36.00	1.57
6.25	51.93	16.25	7.68	26.25	2.94	36.25	1.54
6.50	48.01	16.50	7.45	26.50	2.89	36.50	1.52
6.75	44.52	16.75	7.23	26.75	2.83	36.75	1.50
7.00	41.39	17.00	7.02	27.00	2.78	37.00	1.48
7.25	38.59	17.25	6.82	27.25	2.73	37.25	1.46
7.50	36.06	17.50	6.62	27.50	2.68	37.50	1.44
7.75	33.77	17.75	6.44	27.75	2.63	37.75	1.42
8.00	31.69	18.00	6.26	28.00	2.59	38.00	1.40
8.25	29.80	18.25	6.09	28.25	2.54	38.25	1.39
8.50	28.07	18.50	5.93	28.50	2.50	38.50	1.37
8.75	26.49	18.75	5.77	28.75	2.45	38.75	1.35
9.00	25.04	19.00	5.62	29.00	2.41	39.00	1.33
9.25	23.71	19.25	5.47	29.25	2.37	39.25	1.32
9.50	22.47	19.50	5.33	29.50	2.33	39.50	1.30
9.75	21.34	19.75	5.20	29.75	2.29	39.75	1.28
10.00	20.28	20.00	5.07	30.00	2.25	40.00	1.27

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
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# SMART Meter Power Density Computer Modeling

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Meters 1 Electric Meter

Time Avg: 10%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 1.76

21.13 Inches

BioInitiative ft. 142.50

1710.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	1.25	54.25	0.69	68.25	0.44	82.25	0.30
40.50	1.24	54.50	0.68	68.50	0.43	82.50	0.30
40.75	1.22	54.75	0.68	68.75	0.43	82.75	0.30
41.00	1.21	55.00	0.67	69.00	0.43	83.00	0.29
41.25	1.19	55.25	0.66	69.25	0.42	83.25	0.29
41.50	1.18	55.50	0.66	69.50	0.42	83.50	0.29
41.75	1.16	55.75	0.65	69.75	0.42	83.75	0.29
42.00	1.15	56.00	0.65	70.00	0.41	84.00	0.29
42.25	1.14	56.25	0.64	70.25	0.41	84.25	0.29
42.50	1.12	56.50	0.64	70.50	0.41	84.50	0.28
42.75	1.11	56.75	0.63	70.75	0.41	84.75	0.28
43.00	1.10	57.00	0.62	71.00	0.40	85.00	0.28
43.25	1.08	57.25	0.62	71.25	0.40	85.25	0.28
43.50	1.07	57.50	0.61	71.50	0.40	85.50	0.28
43.75	1.06	57.75	0.61	71.75	0.39	85.75	0.28
44.00	1.05	58.00	0.60	72.00	0.39	86.00	0.27
44.25	1.04	58.25	0.60	72.25	0.39	86.25	0.27
44.50	1.02	58.50	0.59	72.50	0.39	86.50	0.27
44.75	1.01	58.75	0.59	72.75	0.38	86.75	0.27
45.00	1.00	59.00	0.58	73.00	0.38	87.00	0.27
45.25	0.99	59.25	0.58	73.25	0.38	87.25	0.27
45.50	0.98	59.50	0.57	73.50	0.38	87.50	0.26
45.75	0.97	59.75	0.57	73.75	0.37	87.75	0.26
46.00	0.96	60.00	0.56	74.00	0.37	88.00	0.26
46.25	0.95	60.25	0.56	74.25	0.37	88.25	0.26
46.50	0.94	60.50	0.55	74.50	0.37	88.50	0.26
46.75	0.93	60.75	0.55	74.75	0.36	88.75	0.26
47.00	0.92	61.00	0.55	75.00	0.36	89.00	0.26
47.25	0.91	61.25	0.54	75.25	0.36	89.25	0.25
47.50	0.90	61.50	0.54	75.50	0.36	89.50	0.25
47.75	0.89	61.75	0.53	75.75	0.35	89.75	0.25
48.00	0.88	62.00	0.53	76.00	0.35	90.00	0.25
48.25	0.87	62.25	0.52	76.25	0.35	90.25	0.25
48.50	0.86	62.50	0.52	76.50	0.35	90.50	0.25
48.75	0.85	62.75	0.52	76.75	0.34	90.75	0.25
49.00	0.84	63.00	0.51	77.00	0.34	91.00	0.24
49.25	0.84	63.25	0.51	77.25	0.34	91.25	0.24
49.50	0.83	63.50	0.50	77.50	0.34	91.50	0.24
49.75	0.82	63.75	0.50	77.75	0.34	91.75	0.24
50.00	0.81	64.00	0.50	78.00	0.33	92.00	0.24
50.25	0.80	64.25	0.49	78.25	0.33	92.25	0.24
50.50	0.80	64.50	0.49	78.50	0.33	92.50	0.24
50.75	0.79	64.75	0.48	78.75	0.33	92.75	0.24
51.00	0.78	65.00	0.48	79.00	0.33	93.00	0.23
51.25	0.77	65.25	0.48	79.25	0.32	93.25	0.23
51.50	0.76	65.50	0.47	79.50	0.32	93.50	0.23
51.75	0.76	65.75	0.47	79.75	0.32	93.75	0.23
52.00	0.75	66.00	0.47	80.00	0.32	94.00	0.23
52.25	0.74	66.25	0.46	80.25	0.31	94.25	0.23
52.50	0.74	66.50	0.46	80.50	0.31	94.50	0.23
52.75	0.73	66.75	0.46	80.75	0.31	94.75	0.23
53.00	0.72	67.00	0.45	81.00	0.31	95.00	0.22
53.25	0.72	67.25	0.45	81.25	0.31	95.25	0.22
53.50	0.71	67.50	0.45	81.50	0.31	95.50	0.22
53.75	0.70	67.75	0.44	81.75	0.30	95.75	0.22
54.00	0.70	68.00	0.44	82.00	0.30	96.00	0.22

Table 4 – 10%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 20%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 2.49 29.9 Inches

BioInitiative ft. 201.00 2412.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	64906.41	10.25	38.61	20.25	9.89	30.25	4.43
0.50	16226.60	10.50	36.80	20.50	9.65	30.50	4.36
0.75	7211.82	10.75	35.10	20.75	9.42	30.75	4.29
1.00	4056.65	11.00	33.53	21.00	9.20	31.00	4.22
1.25	2596.26	11.25	32.05	21.25	8.98	31.25	4.15
1.50	1802.96	11.50	30.67	21.50	8.78	31.50	4.09
1.75	1324.62	11.75	29.38	21.75	8.58	31.75	4.02
2.00	1014.16	12.00	28.17	22.00	8.38	32.00	3.96
2.25	801.31	12.25	27.03	22.25	8.19	32.25	3.90
2.50	649.06	12.50	25.96	22.50	8.01	32.50	3.84
2.75	536.42	12.75	24.95	22.75	7.84	32.75	3.78
3.00	450.74	13.00	24.00	23.00	7.67	33.00	3.73
3.25	384.06	13.25	23.11	23.25	7.50	33.25	3.67
3.50	331.16	13.50	22.26	23.50	7.35	33.50	3.61
3.75	288.47	13.75	21.46	23.75	7.19	33.75	3.56
4.00	253.54	14.00	20.70	24.00	7.04	34.00	3.51
4.25	224.59	14.25	19.98	24.25	6.90	34.25	3.46
4.50	200.33	14.50	19.29	24.50	6.76	34.50	3.41
4.75	179.80	14.75	18.65	24.75	6.62	34.75	3.36
5.00	162.27	15.00	18.03	25.00	6.49	35.00	3.31
5.25	147.18	15.25	17.44	25.25	6.36	35.25	3.26
5.50	134.10	15.50	16.89	25.50	6.24	35.50	3.22
5.75	122.70	15.75	16.35	25.75	6.12	35.75	3.17
6.00	112.68	16.00	15.85	26.00	6.00	36.00	3.13
6.25	103.85	16.25	15.36	26.25	5.89	36.25	3.09
6.50	96.02	16.50	14.90	26.50	5.78	36.50	3.04
6.75	89.03	16.75	14.46	26.75	5.67	36.75	3.00
7.00	82.79	17.00	14.04	27.00	5.56	37.00	2.96
7.25	77.18	17.25	13.63	27.25	5.46	37.25	2.92
7.50	72.12	17.50	13.25	27.50	5.36	37.50	2.88
7.75	67.54	17.75	12.88	27.75	5.27	37.75	2.85
8.00	63.39	18.00	12.52	28.00	5.17	38.00	2.81
8.25	59.60	18.25	12.18	28.25	5.08	38.25	2.77
8.50	56.15	18.50	11.85	28.50	4.99	38.50	2.74
8.75	52.98	18.75	11.54	28.75	4.91	38.75	2.70
9.00	50.08	19.00	11.24	29.00	4.82	39.00	2.67
9.25	47.41	19.25	10.95	29.25	4.74	39.25	2.63
9.50	44.95	19.50	10.67	29.50	4.66	39.50	2.60
9.75	42.67	19.75	10.40	29.75	4.58	39.75	2.57
10.00	40.57	20.00	10.14	30.00	4.51	40.00	2.54

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 20%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 2.49

29.88 Inches

BioInitiative ft. 201.00

2412.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	2.50	54.25	1.38	68.25	0.87	82.25	0.60
40.50	2.47	54.50	1.37	68.50	0.86	82.50	0.60
40.75	2.44	54.75	1.35	68.75	0.86	82.75	0.59
41.00	2.41	55.00	1.34	69.00	0.85	83.00	0.59
41.25	2.38	55.25	1.33	69.25	0.85	83.25	0.59
41.50	2.36	55.50	1.32	69.50	0.84	83.50	0.58
41.75	2.33	55.75	1.31	69.75	0.83	83.75	0.58
42.00	2.30	56.00	1.29	70.00	0.83	84.00	0.57
42.25	2.27	56.25	1.28	70.25	0.82	84.25	0.57
42.50	2.25	56.50	1.27	70.50	0.82	84.50	0.57
42.75	2.22	56.75	1.26	70.75	0.81	84.75	0.56
43.00	2.19	57.00	1.25	71.00	0.80	85.00	0.56
43.25	2.17	57.25	1.24	71.25	0.80	85.25	0.56
43.50	2.14	57.50	1.23	71.50	0.79	85.50	0.55
43.75	2.12	57.75	1.22	71.75	0.79	85.75	0.55
44.00	2.10	58.00	1.21	72.00	0.78	86.00	0.55
44.25	2.07	58.25	1.20	72.25	0.78	86.25	0.55
44.50	2.05	58.50	1.19	72.50	0.77	86.50	0.54
44.75	2.03	58.75	1.18	72.75	0.77	86.75	0.54
45.00	2.00	59.00	1.17	73.00	0.76	87.00	0.54
45.25	1.98	59.25	1.16	73.25	0.76	87.25	0.53
45.50	1.96	59.50	1.15	73.50	0.75	87.50	0.53
45.75	1.94	59.75	1.14	73.75	0.75	87.75	0.53
46.00	1.92	60.00	1.13	74.00	0.74	88.00	0.52
46.25	1.90	60.25	1.12	74.25	0.74	88.25	0.52
46.50	1.88	60.50	1.11	74.50	0.73	88.50	0.52
46.75	1.86	60.75	1.10	74.75	0.73	88.75	0.52
47.00	1.84	61.00	1.09	75.00	0.72	89.00	0.51
47.25	1.82	61.25	1.08	75.25	0.72	89.25	0.51
47.50	1.80	61.50	1.07	75.50	0.71	89.50	0.51
47.75	1.78	61.75	1.06	75.75	0.71	89.75	0.50
48.00	1.76	62.00	1.06	76.00	0.70	90.00	0.50
48.25	1.74	62.25	1.05	76.25	0.70	90.25	0.50
48.50	1.72	62.50	1.04	76.50	0.69	90.50	0.50
48.75	1.71	62.75	1.03	76.75	0.69	90.75	0.49
49.00	1.69	63.00	1.02	77.00	0.68	91.00	0.49
49.25	1.67	63.25	1.01	77.25	0.68	91.25	0.49
49.50	1.66	63.50	1.01	77.50	0.68	91.50	0.48
49.75	1.64	63.75	1.00	77.75	0.67	91.75	0.48
50.00	1.62	64.00	0.99	78.00	0.67	92.00	0.48
50.25	1.61	64.25	0.98	78.25	0.66	92.25	0.48
50.50	1.59	64.50	0.98	78.50	0.66	92.50	0.47
50.75	1.58	64.75	0.97	78.75	0.65	92.75	0.47
51.00	1.56	65.00	0.96	79.00	0.65	93.00	0.47
51.25	1.54	65.25	0.95	79.25	0.65	93.25	0.47
51.50	1.53	65.50	0.95	79.50	0.64	93.50	0.46
51.75	1.51	65.75	0.94	79.75	0.64	93.75	0.46
52.00	1.50	66.00	0.93	80.00	0.63	94.00	0.46
52.25	1.49	66.25	0.92	80.25	0.63	94.25	0.46
52.50	1.47	66.50	0.92	80.50	0.63	94.50	0.45
52.75	1.46	66.75	0.91	80.75	0.62	94.75	0.45
53.00	1.44	67.00	0.90	81.00	0.62	95.00	0.45
53.25	1.43	67.25	0.90	81.25	0.61	95.25	0.45
53.50	1.42	67.50	0.89	81.50	0.61	95.50	0.44
53.75	1.40	67.75	0.88	81.75	0.61	95.75	0.44
54.00	1.39	68.00	0.88	82.00	0.60	96.00	0.44

Table 4 – 20%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 30%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 3.05 36.6 Inches

BioInitiative ft. 247.00 2964.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	97359.61	10.25	57.92	20.25	14.84	30.25	6.65
0.50	24339.90	10.50	55.19	20.50	14.48	30.50	6.54
0.75	10817.73	10.75	52.66	20.75	14.13	30.75	6.44
1.00	6084.98	11.00	50.29	21.00	13.80	31.00	6.33
1.25	3894.38	11.25	48.08	21.25	13.48	31.25	6.23
1.50	2704.43	11.50	46.01	21.50	13.16	31.50	6.13
1.75	1986.93	11.75	44.07	21.75	12.86	31.75	6.04
2.00	1521.24	12.00	42.26	22.00	12.57	32.00	5.94
2.25	1201.97	12.25	40.55	22.25	12.29	32.25	5.85
2.50	973.60	12.50	38.94	22.50	12.02	32.50	5.76
2.75	804.62	12.75	37.43	22.75	11.76	32.75	5.67
3.00	676.11	13.00	36.01	23.00	11.50	33.00	5.59
3.25	576.09	13.25	34.66	23.25	11.26	33.25	5.50
3.50	496.73	13.50	33.39	23.50	11.02	33.50	5.42
3.75	432.71	13.75	32.18	23.75	10.79	33.75	5.34
4.00	380.31	14.00	31.05	24.00	10.56	34.00	5.26
4.25	336.88	14.25	29.97	24.25	10.35	34.25	5.19
4.50	300.49	14.50	28.94	24.50	10.14	34.50	5.11
4.75	269.69	14.75	27.97	24.75	9.93	34.75	5.04
5.00	243.40	15.00	27.04	25.00	9.74	35.00	4.97
5.25	220.77	15.25	26.16	25.25	9.54	35.25	4.90
5.50	201.16	15.50	25.33	25.50	9.36	35.50	4.83
5.75	184.04	15.75	24.53	25.75	9.18	35.75	4.76
6.00	169.03	16.00	23.77	26.00	9.00	36.00	4.70
6.25	155.78	16.25	23.04	26.25	8.83	36.25	4.63
6.50	144.02	16.50	22.35	26.50	8.66	36.50	4.57
6.75	133.55	16.75	21.69	26.75	8.50	36.75	4.51
7.00	124.18	17.00	21.06	27.00	8.35	37.00	4.44
7.25	115.77	17.25	20.45	27.25	8.19	37.25	4.39
7.50	108.18	17.50	19.87	27.50	8.05	37.50	4.33
7.75	101.31	17.75	19.31	27.75	7.90	37.75	4.27
8.00	95.08	18.00	18.78	28.00	7.76	38.00	4.21
8.25	89.40	18.25	18.27	28.25	7.62	38.25	4.16
8.50	84.22	18.50	17.78	28.50	7.49	38.50	4.11
8.75	79.48	18.75	17.31	28.75	7.36	38.75	4.05
9.00	75.12	19.00	16.86	29.00	7.24	39.00	4.00
9.25	71.12	19.25	16.42	29.25	7.11	39.25	3.95
9.50	67.42	19.50	16.00	29.50	6.99	39.50	3.90
9.75	64.01	19.75	15.60	29.75	6.88	39.75	3.85
10.00	60.85	20.00	15.21	30.00	6.76	40.00	3.80

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 30%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 3.05

36.59 Inches

BioInitiative ft. 247.00

2964.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	3.76	54.25	2.07	68.25	1.31	82.25	0.90
40.50	3.71	54.50	2.05	68.50	1.30	82.50	0.89
40.75	3.66	54.75	2.03	68.75	1.29	82.75	0.89
41.00	3.62	55.00	2.01	69.00	1.28	83.00	0.88
41.25	3.58	55.25	1.99	69.25	1.27	83.25	0.88
41.50	3.53	55.50	1.98	69.50	1.26	83.50	0.87
41.75	3.49	55.75	1.96	69.75	1.25	83.75	0.87
42.00	3.45	56.00	1.94	70.00	1.24	84.00	0.86
42.25	3.41	56.25	1.92	70.25	1.23	84.25	0.86
42.50	3.37	56.50	1.91	70.50	1.22	84.50	0.85
42.75	3.33	56.75	1.89	70.75	1.22	84.75	0.85
43.00	3.29	57.00	1.87	71.00	1.21	85.00	0.84
43.25	3.25	57.25	1.86	71.25	1.20	85.25	0.84
43.50	3.22	57.50	1.84	71.50	1.19	85.50	0.83
43.75	3.18	57.75	1.82	71.75	1.18	85.75	0.83
44.00	3.14	58.00	1.81	72.00	1.17	86.00	0.82
44.25	3.11	58.25	1.79	72.25	1.17	86.25	0.82
44.50	3.07	58.50	1.78	72.50	1.16	86.50	0.81
44.75	3.04	58.75	1.76	72.75	1.15	86.75	0.81
45.00	3.00	59.00	1.75	73.00	1.14	87.00	0.80
45.25	2.97	59.25	1.73	73.25	1.13	87.25	0.80
45.50	2.94	59.50	1.72	73.50	1.13	87.50	0.79
45.75	2.91	59.75	1.70	73.75	1.12	87.75	0.79
46.00	2.88	60.00	1.69	74.00	1.11	88.00	0.79
46.25	2.84	60.25	1.68	74.25	1.10	88.25	0.78
46.50	2.81	60.50	1.66	74.50	1.10	88.50	0.78
46.75	2.78	60.75	1.65	74.75	1.09	88.75	0.77
47.00	2.75	61.00	1.64	75.00	1.08	89.00	0.77
47.25	2.73	61.25	1.62	75.25	1.07	89.25	0.76
47.50	2.70	61.50	1.61	75.50	1.07	89.50	0.76
47.75	2.67	61.75	1.60	75.75	1.06	89.75	0.76
48.00	2.64	62.00	1.58	76.00	1.05	90.00	0.75
48.25	2.61	62.25	1.57	76.25	1.05	90.25	0.75
48.50	2.59	62.50	1.56	76.50	1.04	90.50	0.74
48.75	2.56	62.75	1.55	76.75	1.03	90.75	0.74
49.00	2.53	63.00	1.53	77.00	1.03	91.00	0.73
49.25	2.51	63.25	1.52	77.25	1.02	91.25	0.73
49.50	2.48	63.50	1.51	77.50	1.01	91.50	0.73
49.75	2.46	63.75	1.50	77.75	1.01	91.75	0.72
50.00	2.43	64.00	1.49	78.00	1.00	92.00	0.72
50.25	2.41	64.25	1.47	78.25	0.99	92.25	0.72
50.50	2.39	64.50	1.46	78.50	0.99	92.50	0.71
50.75	2.36	64.75	1.45	78.75	0.98	92.75	0.71
51.00	2.34	65.00	1.44	79.00	0.98	93.00	0.70
51.25	2.32	65.25	1.43	79.25	0.97	93.25	0.70
51.50	2.29	65.50	1.42	79.50	0.96	93.50	0.70
51.75	2.27	65.75	1.41	79.75	0.96	93.75	0.69
52.00	2.25	66.00	1.40	80.00	0.95	94.00	0.69
52.25	2.23	66.25	1.39	80.25	0.94	94.25	0.69
52.50	2.21	66.50	1.38	80.50	0.94	94.50	0.68
52.75	2.19	66.75	1.37	80.75	0.93	94.75	0.68
53.00	2.17	67.00	1.36	81.00	0.93	95.00	0.67
53.25	2.15	67.25	1.35	81.25	0.92	95.25	0.67
53.50	2.13	67.50	1.34	81.50	0.92	95.50	0.67
53.75	2.11	67.75	1.33	81.75	0.91	95.75	0.66
54.00	2.09	68.00	1.32	82.00	0.90	96.00	0.66

Table 4 – 30%



# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 40%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 3.52 42.3 Inches

BioInitiative ft. 285.00 3420.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	129812.81	10.25	77.22	20.25	19.79	30.25	8.87
0.50	32453.20	10.50	73.59	20.50	19.31	30.50	8.72
0.75	14423.65	10.75	70.21	20.75	18.84	30.75	8.58
1.00	8113.30	11.00	67.05	21.00	18.40	31.00	8.44
1.25	5192.51	11.25	64.11	21.25	17.97	31.25	8.31
1.50	3605.91	11.50	61.35	21.50	17.55	31.50	8.18
1.75	2649.24	11.75	58.77	21.75	17.15	31.75	8.05
2.00	2028.33	12.00	56.34	22.00	16.76	32.00	7.92
2.25	1602.63	12.25	54.07	22.25	16.39	32.25	7.80
2.50	1298.13	12.50	51.93	22.50	16.03	32.50	7.68
2.75	1072.83	12.75	49.91	22.75	15.68	32.75	7.56
3.00	901.48	13.00	48.01	23.00	15.34	33.00	7.45
3.25	768.12	13.25	46.21	23.25	15.01	33.25	7.34
3.50	662.31	13.50	44.52	23.50	14.69	33.50	7.23
3.75	576.95	13.75	42.91	23.75	14.38	33.75	7.12
4.00	507.08	14.00	41.39	24.00	14.09	34.00	7.02
4.25	449.18	14.25	39.95	24.25	13.80	34.25	6.92
4.50	400.66	14.50	38.59	24.50	13.52	34.50	6.82
4.75	359.59	14.75	37.29	24.75	13.24	34.75	6.72
5.00	324.53	15.00	36.06	25.00	12.98	35.00	6.62
5.25	294.36	15.25	34.89	25.25	12.73	35.25	6.53
5.50	268.21	15.50	33.77	25.50	12.48	35.50	6.44
5.75	245.39	15.75	32.71	25.75	12.24	35.75	6.35
6.00	225.37	16.00	31.69	26.00	12.00	36.00	6.26
6.25	207.70	16.25	30.72	26.25	11.77	36.25	6.17
6.50	192.03	16.50	29.80	26.50	11.55	36.50	6.09
6.75	178.07	16.75	28.92	26.75	11.34	36.75	6.01
7.00	165.58	17.00	28.07	27.00	11.13	37.00	5.93
7.25	154.36	17.25	27.27	27.25	10.93	37.25	5.85
7.50	144.24	17.50	26.49	27.50	10.73	37.50	5.77
7.75	135.08	17.75	25.75	27.75	10.54	37.75	5.69
8.00	126.77	18.00	25.04	28.00	10.35	38.00	5.62
8.25	119.20	18.25	24.36	28.25	10.17	38.25	5.55
8.50	112.29	18.50	23.71	28.50	9.99	38.50	5.47
8.75	105.97	18.75	23.08	28.75	9.82	38.75	5.40
9.00	100.16	19.00	22.47	29.00	9.65	39.00	5.33
9.25	94.82	19.25	21.89	29.25	9.48	39.25	5.27
9.50	89.90	19.50	21.34	29.50	9.32	39.50	5.20
9.75	85.35	19.75	20.80	29.75	9.17	39.75	5.13
10.00	81.13	20.00	20.28	30.00	9.01	40.00	5.07

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 40%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 3.52

42.25 Inches

BioInitiative ft. 285.00

3420.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	5.01	54.25	2.76	68.25	1.74	82.25	1.20
40.50	4.95	54.50	2.73	68.50	1.73	82.50	1.19
40.75	4.89	54.75	2.71	68.75	1.72	82.75	1.18
41.00	4.83	55.00	2.68	69.00	1.70	83.00	1.18
41.25	4.77	55.25	2.66	69.25	1.69	83.25	1.17
41.50	4.71	55.50	2.63	69.50	1.68	83.50	1.16
41.75	4.65	55.75	2.61	69.75	1.67	83.75	1.16
42.00	4.60	56.00	2.59	70.00	1.66	84.00	1.15
42.25	4.55	56.25	2.56	70.25	1.64	84.25	1.14
42.50	4.49	56.50	2.54	70.50	1.63	84.50	1.14
42.75	4.44	56.75	2.52	70.75	1.62	84.75	1.13
43.00	4.39	57.00	2.50	71.00	1.61	85.00	1.12
43.25	4.34	57.25	2.48	71.25	1.60	85.25	1.12
43.50	4.29	57.50	2.45	71.50	1.59	85.50	1.11
43.75	4.24	57.75	2.43	71.75	1.58	85.75	1.10
44.00	4.19	58.00	2.41	72.00	1.57	86.00	1.10
44.25	4.14	58.25	2.39	72.25	1.55	86.25	1.09
44.50	4.10	58.50	2.37	72.50	1.54	86.50	1.08
44.75	4.05	58.75	2.35	72.75	1.53	86.75	1.08
45.00	4.01	59.00	2.33	73.00	1.52	87.00	1.07
45.25	3.96	59.25	2.31	73.25	1.51	87.25	1.07
45.50	3.92	59.50	2.29	73.50	1.50	87.50	1.06
45.75	3.88	59.75	2.27	73.75	1.49	87.75	1.05
46.00	3.83	60.00	2.25	74.00	1.48	88.00	1.05
46.25	3.79	60.25	2.24	74.25	1.47	88.25	1.04
46.50	3.75	60.50	2.22	74.50	1.46	88.50	1.04
46.75	3.71	60.75	2.20	74.75	1.45	88.75	1.03
47.00	3.67	61.00	2.18	75.00	1.44	89.00	1.02
47.25	3.63	61.25	2.16	75.25	1.43	89.25	1.02
47.50	3.60	61.50	2.15	75.50	1.42	89.50	1.01
47.75	3.56	61.75	2.13	75.75	1.41	89.75	1.01
48.00	3.52	62.00	2.11	76.00	1.40	90.00	1.00
48.25	3.49	62.25	2.09	76.25	1.40	90.25	1.00
48.50	3.45	62.50	2.08	76.50	1.39	90.50	0.99
48.75	3.41	62.75	2.06	76.75	1.38	90.75	0.99
49.00	3.38	63.00	2.04	77.00	1.37	91.00	0.98
49.25	3.34	63.25	2.03	77.25	1.36	91.25	0.97
49.50	3.31	63.50	2.01	77.50	1.35	91.50	0.97
49.75	3.28	63.75	2.00	77.75	1.34	91.75	0.96
50.00	3.25	64.00	1.98	78.00	1.33	92.00	0.96
50.25	3.21	64.25	1.97	78.25	1.33	92.25	0.95
50.50	3.18	64.50	1.95	78.50	1.32	92.50	0.95
50.75	3.15	64.75	1.94	78.75	1.31	92.75	0.94
51.00	3.12	65.00	1.92	79.00	1.30	93.00	0.94
51.25	3.09	65.25	1.91	79.25	1.29	93.25	0.93
51.50	3.06	65.50	1.89	79.50	1.28	93.50	0.93
51.75	3.03	65.75	1.88	79.75	1.28	93.75	0.92
52.00	3.00	66.00	1.86	80.00	1.27	94.00	0.92
52.25	2.97	66.25	1.85	80.25	1.26	94.25	0.91
52.50	2.94	66.50	1.83	80.50	1.25	94.50	0.91
52.75	2.92	66.75	1.82	80.75	1.24	94.75	0.90
53.00	2.89	67.00	1.81	81.00	1.24	95.00	0.90
53.25	2.86	67.25	1.79	81.25	1.23	95.25	0.89
53.50	2.83	67.50	1.78	81.50	1.22	95.50	0.89
53.75	2.81	67.75	1.77	81.75	1.21	95.75	0.88
54.00	2.78	68.00	1.75	82.00	1.21	96.00	0.88

Table 4 – 40%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 50%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 3.94 47.2 Inches

BioInitiative ft. 318.00 3816.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	162266.02	10.25	96.53	20.25	24.73	30.25	11.08
0.50	40566.50	10.50	91.99	20.50	24.13	30.50	10.90
0.75	18029.56	10.75	87.76	20.75	23.55	30.75	10.73
1.00	10141.63	11.00	83.82	21.00	23.00	31.00	10.55
1.25	6490.64	11.25	80.13	21.25	22.46	31.25	10.39
1.50	4507.39	11.50	76.69	21.50	21.94	31.50	10.22
1.75	3311.55	11.75	73.46	21.75	21.44	31.75	10.06
2.00	2535.41	12.00	70.43	22.00	20.95	32.00	9.90
2.25	2003.28	12.25	67.58	22.25	20.49	32.25	9.75
2.50	1622.66	12.50	64.91	22.50	20.03	32.50	9.60
2.75	1341.04	12.75	62.39	22.75	19.59	32.75	9.46
3.00	1126.85	13.00	60.01	23.00	19.17	33.00	9.31
3.25	960.15	13.25	57.77	23.25	18.76	33.25	9.17
3.50	827.89	13.50	55.65	23.50	18.36	33.50	9.04
3.75	721.18	13.75	53.64	23.75	17.98	33.75	8.90
4.00	633.85	14.00	51.74	24.00	17.61	34.00	8.77
4.25	561.47	14.25	49.94	24.25	17.25	34.25	8.65
4.50	500.82	14.50	48.24	24.50	16.90	34.50	8.52
4.75	449.49	14.75	46.61	24.75	16.56	34.75	8.40
5.00	405.67	15.00	45.07	25.00	16.23	35.00	8.28
5.25	367.95	15.25	43.61	25.25	15.91	35.25	8.16
5.50	335.26	15.50	42.21	25.50	15.60	35.50	8.05
5.75	306.74	15.75	40.88	25.75	15.30	35.75	7.94
6.00	281.71	16.00	39.62	26.00	15.00	36.00	7.83
6.25	259.63	16.25	38.41	26.25	14.72	36.25	7.72
6.50	240.04	16.50	37.25	26.50	14.44	36.50	7.61
6.75	222.59	16.75	36.15	26.75	14.17	36.75	7.51
7.00	206.97	17.00	35.09	27.00	13.91	37.00	7.41
7.25	192.94	17.25	34.08	27.25	13.66	37.25	7.31
7.50	180.30	17.50	33.12	27.50	13.41	37.50	7.21
7.75	168.85	17.75	32.19	27.75	13.17	37.75	7.12
8.00	158.46	18.00	31.30	28.00	12.94	38.00	7.02
8.25	149.00	18.25	30.45	28.25	12.71	38.25	6.93
8.50	140.37	18.50	29.63	28.50	12.49	38.50	6.84
8.75	132.46	18.75	28.85	28.75	12.27	38.75	6.75
9.00	125.21	19.00	28.09	29.00	12.06	39.00	6.67
9.25	118.53	19.25	27.37	29.25	11.85	39.25	6.58
9.50	112.37	19.50	26.67	29.50	11.65	39.50	6.50
9.75	106.68	19.75	26.00	29.75	11.46	39.75	6.42
10.00	101.42	20.00	25.35	30.00	11.27	40.00	6.34

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 50%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 3.94

47.24 Inches

BioInitiative ft. 318.00

3816.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	6.26	54.25	3.45	68.25	2.18	82.25	1.50
40.50	6.18	54.50	3.41	68.50	2.16	82.50	1.49
40.75	6.11	54.75	3.38	68.75	2.15	82.75	1.48
41.00	6.03	55.00	3.35	69.00	2.13	83.00	1.47
41.25	5.96	55.25	3.32	69.25	2.11	83.25	1.46
41.50	5.89	55.50	3.29	69.50	2.10	83.50	1.45
41.75	5.82	55.75	3.26	69.75	2.08	83.75	1.45
42.00	5.75	56.00	3.23	70.00	2.07	84.00	1.44
42.25	5.68	56.25	3.21	70.25	2.06	84.25	1.43
42.50	5.61	56.50	3.18	70.50	2.04	84.50	1.42
42.75	5.55	56.75	3.15	70.75	2.03	84.75	1.41
43.00	5.48	57.00	3.12	71.00	2.01	85.00	1.40
43.25	5.42	57.25	3.09	71.25	2.00	85.25	1.40
43.50	5.36	57.50	3.07	71.50	1.98	85.50	1.39
43.75	5.30	57.75	3.04	71.75	1.97	85.75	1.38
44.00	5.24	58.00	3.01	72.00	1.96	86.00	1.37
44.25	5.18	58.25	2.99	72.25	1.94	86.25	1.36
44.50	5.12	58.50	2.96	72.50	1.93	86.50	1.36
44.75	5.06	58.75	2.94	72.75	1.92	86.75	1.35
45.00	5.01	59.00	2.91	73.00	1.90	87.00	1.34
45.25	4.95	59.25	2.89	73.25	1.89	87.25	1.33
45.50	4.90	59.50	2.86	73.50	1.88	87.50	1.32
45.75	4.85	59.75	2.84	73.75	1.86	87.75	1.32
46.00	4.79	60.00	2.82	74.00	1.85	88.00	1.31
46.25	4.74	60.25	2.79	74.25	1.84	88.25	1.30
46.50	4.69	60.50	2.77	74.50	1.83	88.50	1.29
46.75	4.64	60.75	2.75	74.75	1.82	88.75	1.29
47.00	4.59	61.00	2.73	75.00	1.80	89.00	1.28
47.25	4.54	61.25	2.70	75.25	1.79	89.25	1.27
47.50	4.49	61.50	2.68	75.50	1.78	89.50	1.27
47.75	4.45	61.75	2.66	75.75	1.77	89.75	1.26
48.00	4.40	62.00	2.64	76.00	1.76	90.00	1.25
48.25	4.36	62.25	2.62	76.25	1.74	90.25	1.25
48.50	4.31	62.50	2.60	76.50	1.73	90.50	1.24
48.75	4.27	62.75	2.58	76.75	1.72	90.75	1.23
49.00	4.22	63.00	2.56	77.00	1.71	91.00	1.22
49.25	4.18	63.25	2.54	77.25	1.70	91.25	1.22
49.50	4.14	63.50	2.52	77.50	1.69	91.50	1.21
49.75	4.10	63.75	2.50	77.75	1.68	91.75	1.20
50.00	4.06	64.00	2.48	78.00	1.67	92.00	1.20
50.25	4.02	64.25	2.46	78.25	1.66	92.25	1.19
50.50	3.98	64.50	2.44	78.50	1.65	92.50	1.19
50.75	3.94	64.75	2.42	78.75	1.64	92.75	1.18
51.00	3.90	65.00	2.40	79.00	1.63	93.00	1.17
51.25	3.86	65.25	2.38	79.25	1.61	93.25	1.17
51.50	3.82	65.50	2.36	79.50	1.60	93.50	1.16
51.75	3.79	65.75	2.35	79.75	1.59	93.75	1.15
52.00	3.75	66.00	2.33	80.00	1.58	94.00	1.15
52.25	3.71	66.25	2.31	80.25	1.57	94.25	1.14
52.50	3.68	66.50	2.29	80.50	1.57	94.50	1.14
52.75	3.64	66.75	2.28	80.75	1.56	94.75	1.13
53.00	3.61	67.00	2.26	81.00	1.55	95.00	1.12
53.25	3.58	67.25	2.24	81.25	1.54	95.25	1.12
53.50	3.54	67.50	2.23	81.50	1.53	95.50	1.11
53.75	3.51	67.75	2.21	81.75	1.52	95.75	1.11
54.00	3.48	68.00	2.19	82.00	1.51	96.00	1.10

Table 4 – 50%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 60%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 4.31 51.7 Inches

BioInitiative ft. 348.00 4176.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	194719.22	10.25	115.84	20.25	29.68	30.25	13.30
0.50	48679.81	10.50	110.39	20.50	28.96	30.50	13.08
0.75	21635.47	10.75	105.31	20.75	28.27	30.75	12.87
1.00	12169.95	11.00	100.58	21.00	27.60	31.00	12.66
1.25	7788.77	11.25	96.16	21.25	26.95	31.25	12.46
1.50	5408.87	11.50	92.02	21.50	26.33	31.50	12.27
1.75	3973.86	11.75	88.15	21.75	25.73	31.75	12.07
2.00	3042.49	12.00	84.51	22.00	25.14	32.00	11.88
2.25	2403.94	12.25	81.10	22.25	24.58	32.25	11.70
2.50	1947.19	12.50	77.89	22.50	24.04	32.50	11.52
2.75	1609.25	12.75	74.86	22.75	23.51	32.75	11.35
3.00	1352.22	13.00	72.01	23.00	23.01	33.00	11.18
3.25	1152.18	13.25	69.32	23.25	22.51	33.25	11.01
3.50	993.47	13.50	66.78	23.50	22.04	33.50	10.84
3.75	865.42	13.75	64.37	23.75	21.58	33.75	10.68
4.00	760.62	14.00	62.09	24.00	21.13	34.00	10.53
4.25	673.77	14.25	59.93	24.25	20.69	34.25	10.37
4.50	600.99	14.50	57.88	24.50	20.27	34.50	10.22
4.75	539.39	14.75	55.94	24.75	19.87	34.75	10.08
5.00	486.80	15.00	54.09	25.00	19.47	35.00	9.93
5.25	441.54	15.25	52.33	25.25	19.09	35.25	9.79
5.50	402.31	15.50	50.66	25.50	18.72	35.50	9.66
5.75	368.09	15.75	49.06	25.75	18.35	35.75	9.52
6.00	338.05	16.00	47.54	26.00	18.00	36.00	9.39
6.25	311.55	16.25	46.09	26.25	17.66	36.25	9.26
6.50	288.05	16.50	44.70	26.50	17.33	36.50	9.13
6.75	267.10	16.75	43.38	26.75	17.01	36.75	9.01
7.00	248.37	17.00	42.11	27.00	16.69	37.00	8.89
7.25	231.53	17.25	40.90	27.25	16.39	37.25	8.77
7.50	216.35	17.50	39.74	27.50	16.09	37.50	8.65
7.75	202.62	17.75	38.63	27.75	15.80	37.75	8.54
8.00	190.16	18.00	37.56	28.00	15.52	38.00	8.43
8.25	178.81	18.25	36.54	28.25	15.25	38.25	8.32
8.50	168.44	18.50	35.56	28.50	14.98	38.50	8.21
8.75	158.95	18.75	34.62	28.75	14.72	38.75	8.10
9.00	150.25	19.00	33.71	29.00	14.47	39.00	8.00
9.25	142.23	19.25	32.84	29.25	14.22	39.25	7.90
9.50	134.85	19.50	32.01	29.50	13.98	39.50	7.80
9.75	128.02	19.75	31.20	29.75	13.75	39.75	7.70
10.00	121.70	20.00	30.42	30.00	13.52	40.00	7.61

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 60%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 4.31

51.75 Inches

BioInitiative ft. 348.00

4176.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	7.51	54.25	4.14	68.25	2.61	82.25	1.80
40.50	7.42	54.50	4.10	68.50	2.59	82.50	1.79
40.75	7.33	54.75	4.06	68.75	2.57	82.75	1.78
41.00	7.24	55.00	4.02	69.00	2.56	83.00	1.77
41.25	7.15	55.25	3.99	69.25	2.54	83.25	1.76
41.50	7.07	55.50	3.95	69.50	2.52	83.50	1.75
41.75	6.98	55.75	3.92	69.75	2.50	83.75	1.74
42.00	6.90	56.00	3.88	70.00	2.48	84.00	1.72
42.25	6.82	56.25	3.85	70.25	2.47	84.25	1.71
42.50	6.74	56.50	3.81	70.50	2.45	84.50	1.70
42.75	6.66	56.75	3.78	70.75	2.43	84.75	1.69
43.00	6.58	57.00	3.75	71.00	2.41	85.00	1.68
43.25	6.51	57.25	3.71	71.25	2.40	85.25	1.67
43.50	6.43	57.50	3.68	71.50	2.38	85.50	1.66
43.75	6.36	57.75	3.65	71.75	2.36	85.75	1.66
44.00	6.29	58.00	3.62	72.00	2.35	86.00	1.65
44.25	6.22	58.25	3.59	72.25	2.33	86.25	1.64
44.50	6.15	58.50	3.56	72.50	2.32	86.50	1.63
44.75	6.08	58.75	3.53	72.75	2.30	86.75	1.62
45.00	6.01	59.00	3.50	73.00	2.28	87.00	1.61
45.25	5.94	59.25	3.47	73.25	2.27	87.25	1.60
45.50	5.88	59.50	3.44	73.50	2.25	87.50	1.59
45.75	5.81	59.75	3.41	73.75	2.24	87.75	1.58
46.00	5.75	60.00	3.38	74.00	2.22	88.00	1.57
46.25	5.69	60.25	3.35	74.25	2.21	88.25	1.56
46.50	5.63	60.50	3.32	74.50	2.19	88.50	1.55
46.75	5.57	60.75	3.30	74.75	2.18	88.75	1.55
47.00	5.51	61.00	3.27	75.00	2.16	89.00	1.54
47.25	5.45	61.25	3.24	75.25	2.15	89.25	1.53
47.50	5.39	61.50	3.22	75.50	2.13	89.50	1.52
47.75	5.34	61.75	3.19	75.75	2.12	89.75	1.51
48.00	5.28	62.00	3.17	76.00	2.11	90.00	1.50
48.25	5.23	62.25	3.14	76.25	2.09	90.25	1.49
48.50	5.17	62.50	3.12	76.50	2.08	90.50	1.49
48.75	5.12	62.75	3.09	76.75	2.07	90.75	1.48
49.00	5.07	63.00	3.07	77.00	2.05	91.00	1.47
49.25	5.02	63.25	3.04	77.25	2.04	91.25	1.46
49.50	4.97	63.50	3.02	77.50	2.03	91.50	1.45
49.75	4.92	63.75	2.99	77.75	2.01	91.75	1.45
50.00	4.87	64.00	2.97	78.00	2.00	92.00	1.44
50.25	4.82	64.25	2.95	78.25	1.99	92.25	1.43
50.50	4.77	64.50	2.93	78.50	1.97	92.50	1.42
50.75	4.73	64.75	2.90	78.75	1.96	92.75	1.41
51.00	4.68	65.00	2.88	79.00	1.95	93.00	1.41
51.25	4.63	65.25	2.86	79.25	1.94	93.25	1.40
51.50	4.59	65.50	2.84	79.50	1.93	93.50	1.39
51.75	4.54	65.75	2.82	79.75	1.91	93.75	1.38
52.00	4.50	66.00	2.79	80.00	1.90	94.00	1.38
52.25	4.46	66.25	2.77	80.25	1.89	94.25	1.37
52.50	4.42	66.50	2.75	80.50	1.88	94.50	1.36
52.75	4.37	66.75	2.73	80.75	1.87	94.75	1.36
53.00	4.33	67.00	2.71	81.00	1.85	95.00	1.35
53.25	4.29	67.25	2.69	81.25	1.84	95.25	1.34
53.50	4.25	67.50	2.67	81.50	1.83	95.50	1.33
53.75	4.21	67.75	2.65	81.75	1.82	95.75	1.33
54.00	4.17	68.00	2.63	82.00	1.81	96.00	1.32

Table 4 – 60%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 70%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 4.66 55.9 Inches

BioInitiative ft. 376.00 4512.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	227172.42	10.25	135.14	20.25	34.62	30.25	15.52
0.50	56793.11	10.50	128.78	20.50	33.79	30.50	15.26
0.75	25241.38	10.75	122.86	20.75	32.98	30.75	15.02
1.00	14198.28	11.00	117.34	21.00	32.20	31.00	14.77
1.25	9086.90	11.25	112.18	21.25	31.44	31.25	14.54
1.50	6310.35	11.50	107.36	21.50	30.72	31.50	14.31
1.75	4636.17	11.75	102.84	21.75	30.01	31.75	14.08
2.00	3549.57	12.00	98.60	22.00	29.34	32.00	13.87
2.25	2804.60	12.25	94.62	22.25	28.68	32.25	13.65
2.50	2271.72	12.50	90.87	22.50	28.05	32.50	13.44
2.75	1877.46	12.75	87.34	22.75	27.43	32.75	13.24
3.00	1577.59	13.00	84.01	23.00	26.84	33.00	13.04
3.25	1344.22	13.25	80.87	23.25	26.27	33.25	12.84
3.50	1159.04	13.50	77.91	23.50	25.71	33.50	12.65
3.75	1009.66	13.75	75.10	23.75	25.17	33.75	12.46
4.00	887.39	14.00	72.44	24.00	24.65	34.00	12.28
4.25	786.06	14.25	69.92	24.25	24.14	34.25	12.10
4.50	701.15	14.50	67.53	24.50	23.65	34.50	11.93
4.75	629.29	14.75	65.26	24.75	23.18	34.75	11.76
5.00	567.93	15.00	63.10	25.00	22.72	35.00	11.59
5.25	515.13	15.25	61.05	25.25	22.27	35.25	11.43
5.50	469.36	15.50	59.10	25.50	21.84	35.50	11.27
5.75	429.44	15.75	57.24	25.75	21.41	35.75	11.11
6.00	394.40	16.00	55.46	26.00	21.00	36.00	10.96
6.25	363.48	16.25	53.77	26.25	20.61	36.25	10.80
6.50	336.05	16.50	52.15	26.50	20.22	36.50	10.66
6.75	311.62	16.75	50.61	26.75	19.84	36.75	10.51
7.00	289.76	17.00	49.13	27.00	19.48	37.00	10.37
7.25	270.12	17.25	47.72	27.25	19.12	37.25	10.23
7.50	252.41	17.50	46.36	27.50	18.77	37.50	10.10
7.75	236.39	17.75	45.06	27.75	18.44	37.75	9.96
8.00	221.85	18.00	43.82	28.00	18.11	38.00	9.83
8.25	208.61	18.25	42.63	28.25	17.79	38.25	9.70
8.50	196.52	18.50	41.49	28.50	17.48	38.50	9.58
8.75	185.45	18.75	40.39	28.75	17.18	38.75	9.46
9.00	175.29	19.00	39.33	29.00	16.88	39.00	9.33
9.25	165.94	19.25	38.32	29.25	16.60	39.25	9.22
9.50	157.32	19.50	37.34	29.50	16.32	39.50	9.10
9.75	149.36	19.75	36.40	29.75	16.04	39.75	8.99
10.00	141.98	20.00	35.50	30.00	15.78	40.00	8.87

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi i) R^2$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 70%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 4.66

55.89 Inches

BioInitiative ft. 376.00

4512.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	8.76	54.25	4.82	68.25	3.05	82.25	2.10
40.50	8.66	54.50	4.78	68.50	3.03	82.50	2.09
40.75	8.55	54.75	4.74	68.75	3.00	82.75	2.07
41.00	8.45	55.00	4.69	69.00	2.98	83.00	2.06
41.25	8.34	55.25	4.65	69.25	2.96	83.25	2.05
41.50	8.24	55.50	4.61	69.50	2.94	83.50	2.04
41.75	8.15	55.75	4.57	69.75	2.92	83.75	2.02
42.00	8.05	56.00	4.53	70.00	2.90	84.00	2.01
42.25	7.95	56.25	4.49	70.25	2.88	84.25	2.00
42.50	7.86	56.50	4.45	70.50	2.86	84.50	1.99
42.75	7.77	56.75	4.41	70.75	2.84	84.75	1.98
43.00	7.68	57.00	4.37	71.00	2.82	85.00	1.97
43.25	7.59	57.25	4.33	71.25	2.80	85.25	1.95
43.50	7.50	57.50	4.29	71.50	2.78	85.50	1.94
43.75	7.42	57.75	4.26	71.75	2.76	85.75	1.93
44.00	7.33	58.00	4.22	72.00	2.74	86.00	1.92
44.25	7.25	58.25	4.18	72.25	2.72	86.25	1.91
44.50	7.17	58.50	4.15	72.50	2.70	86.50	1.90
44.75	7.09	58.75	4.11	72.75	2.68	86.75	1.89
45.00	7.01	59.00	4.08	73.00	2.66	87.00	1.88
45.25	6.93	59.25	4.04	73.25	2.65	87.25	1.87
45.50	6.86	59.50	4.01	73.50	2.63	87.50	1.85
45.75	6.78	59.75	3.98	73.75	2.61	87.75	1.84
46.00	6.71	60.00	3.94	74.00	2.59	88.00	1.83
46.25	6.64	60.25	3.91	74.25	2.58	88.25	1.82
46.50	6.57	60.50	3.88	74.50	2.56	88.50	1.81
46.75	6.50	60.75	3.85	74.75	2.54	88.75	1.80
47.00	6.43	61.00	3.82	75.00	2.52	89.00	1.79
47.25	6.36	61.25	3.78	75.25	2.51	89.25	1.78
47.50	6.29	61.50	3.75	75.50	2.49	89.50	1.77
47.75	6.23	61.75	3.72	75.75	2.47	89.75	1.76
48.00	6.16	62.00	3.69	76.00	2.46	90.00	1.75
48.25	6.10	62.25	3.66	76.25	2.44	90.25	1.74
48.50	6.04	62.50	3.63	76.50	2.43	90.50	1.73
48.75	5.97	62.75	3.61	76.75	2.41	90.75	1.72
49.00	5.91	63.00	3.58	77.00	2.39	91.00	1.71
49.25	5.85	63.25	3.55	77.25	2.38	91.25	1.71
49.50	5.79	63.50	3.52	77.50	2.36	91.50	1.70
49.75	5.74	63.75	3.49	77.75	2.35	91.75	1.69
50.00	5.68	64.00	3.47	78.00	2.33	92.00	1.68
50.25	5.62	64.25	3.44	78.25	2.32	92.25	1.67
50.50	5.57	64.50	3.41	78.50	2.30	92.50	1.66
50.75	5.51	64.75	3.39	78.75	2.29	92.75	1.65
51.00	5.46	65.00	3.36	79.00	2.28	93.00	1.64
51.25	5.41	65.25	3.33	79.25	2.26	93.25	1.63
51.50	5.35	65.50	3.31	79.50	2.25	93.50	1.62
51.75	5.30	65.75	3.28	79.75	2.23	93.75	1.62
52.00	5.25	66.00	3.26	80.00	2.22	94.00	1.61
52.25	5.20	66.25	3.23	80.25	2.20	94.25	1.60
52.50	5.15	66.50	3.21	80.50	2.19	94.50	1.59
52.75	5.10	66.75	3.19	80.75	2.18	94.75	1.58
53.00	5.05	67.00	3.16	81.00	2.16	95.00	1.57
53.25	5.01	67.25	3.14	81.25	2.15	95.25	1.56
53.50	4.96	67.50	3.12	81.50	2.14	95.50	1.56
53.75	4.91	67.75	3.09	81.75	2.12	95.75	1.55
54.00	4.87	68.00	3.07	82.00	2.11	96.00	1.54

Table 4 – 70%



# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 80%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 4.98 59.8 Inches

BioInitiative ft. 402.80 4833.6 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	259625.63	10.25	154.45	20.25	39.57	30.25	17.73
0.50	64906.41	10.50	147.18	20.50	38.61	30.50	17.44
0.75	28847.29	10.75	140.41	20.75	37.69	30.75	17.16
1.00	16226.60	11.00	134.10	21.00	36.80	31.00	16.89
1.25	10385.03	11.25	128.21	21.25	35.93	31.25	16.62
1.50	7211.82	11.50	122.70	21.50	35.10	31.50	16.35
1.75	5298.48	11.75	117.53	21.75	34.30	31.75	16.10
2.00	4056.65	12.00	112.68	22.00	33.53	32.00	15.85
2.25	3205.25	12.25	108.13	22.25	32.78	32.25	15.60
2.50	2596.26	12.50	103.85	22.50	32.05	32.50	15.36
2.75	2145.67	12.75	99.82	22.75	31.35	32.75	15.13
3.00	1802.96	13.00	96.02	23.00	30.67	33.00	14.90
3.25	1536.25	13.25	92.43	23.25	30.02	33.25	14.68
3.50	1324.62	13.50	89.03	23.50	29.38	33.50	14.46
3.75	1153.89	13.75	85.83	23.75	28.77	33.75	14.25
4.00	1014.16	14.00	82.79	24.00	28.17	34.00	14.04
4.25	898.36	14.25	79.91	24.25	27.59	34.25	13.83
4.50	801.31	14.50	77.18	24.50	27.03	34.50	13.63
4.75	719.18	14.75	74.58	24.75	26.49	34.75	13.44
5.00	649.06	15.00	72.12	25.00	25.96	35.00	13.25
5.25	588.72	15.25	69.77	25.25	25.45	35.25	13.06
5.50	536.42	15.50	67.54	25.50	24.95	35.50	12.88
5.75	490.79	15.75	65.41	25.75	24.47	35.75	12.70
6.00	450.74	16.00	63.39	26.00	24.00	36.00	12.52
6.25	415.40	16.25	61.45	26.25	23.55	36.25	12.35
6.50	384.06	16.50	59.60	26.50	23.11	36.50	12.18
6.75	356.14	16.75	57.84	26.75	22.68	36.75	12.01
7.00	331.16	17.00	56.15	27.00	22.26	37.00	11.85
7.25	308.71	17.25	54.53	27.25	21.85	37.25	11.69
7.50	288.47	17.50	52.98	27.50	21.46	37.50	11.54
7.75	270.16	17.75	51.50	27.75	21.07	37.75	11.39
8.00	253.54	18.00	50.08	28.00	20.70	38.00	11.24
8.25	238.41	18.25	48.72	28.25	20.33	38.25	11.09
8.50	224.59	18.50	47.41	28.50	19.98	38.50	10.95
8.75	211.94	18.75	46.16	28.75	19.63	38.75	10.81
9.00	200.33	19.00	44.95	29.00	19.29	39.00	10.67
9.25	189.65	19.25	43.79	29.25	18.97	39.25	10.53
9.50	179.80	19.50	42.67	29.50	18.65	39.50	10.40
9.75	170.69	19.75	41.60	29.75	18.33	39.75	10.27
10.00	162.27	20.00	40.57	30.00	18.03	40.00	10.14

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 80%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 4.98

59.75 Inches

BioInitiative ft. 402.80

4833.60 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	10.02	54.25	5.51	68.25	3.48	82.25	2.40
40.50	9.89	54.50	5.46	68.50	3.46	82.50	2.38
40.75	9.77	54.75	5.41	68.75	3.43	82.75	2.37
41.00	9.65	55.00	5.36	69.00	3.41	83.00	2.36
41.25	9.54	55.25	5.32	69.25	3.38	83.25	2.34
41.50	9.42	55.50	5.27	69.50	3.36	83.50	2.33
41.75	9.31	55.75	5.22	69.75	3.34	83.75	2.31
42.00	9.20	56.00	5.17	70.00	3.31	84.00	2.30
42.25	9.09	56.25	5.13	70.25	3.29	84.25	2.29
42.50	8.98	56.50	5.08	70.50	3.26	84.50	2.27
42.75	8.88	56.75	5.04	70.75	3.24	84.75	2.26
43.00	8.78	57.00	4.99	71.00	3.22	85.00	2.25
43.25	8.67	57.25	4.95	71.25	3.20	85.25	2.23
43.50	8.58	57.50	4.91	71.50	3.17	85.50	2.22
43.75	8.48	57.75	4.87	71.75	3.15	85.75	2.21
44.00	8.38	58.00	4.82	72.00	3.13	86.00	2.19
44.25	8.29	58.25	4.78	72.25	3.11	86.25	2.18
44.50	8.19	58.50	4.74	72.50	3.09	86.50	2.17
44.75	8.10	58.75	4.70	72.75	3.07	86.75	2.16
45.00	8.01	59.00	4.66	73.00	3.04	87.00	2.14
45.25	7.92	59.25	4.62	73.25	3.02	87.25	2.13
45.50	7.84	59.50	4.58	73.50	3.00	87.50	2.12
45.75	7.75	59.75	4.55	73.75	2.98	87.75	2.11
46.00	7.67	60.00	4.51	74.00	2.96	88.00	2.10
46.25	7.59	60.25	4.47	74.25	2.94	88.25	2.08
46.50	7.50	60.50	4.43	74.50	2.92	88.50	2.07
46.75	7.42	60.75	4.40	74.75	2.90	88.75	2.06
47.00	7.35	61.00	4.36	75.00	2.88	89.00	2.05
47.25	7.27	61.25	4.33	75.25	2.87	89.25	2.04
47.50	7.19	61.50	4.29	75.50	2.85	89.50	2.03
47.75	7.12	61.75	4.26	75.75	2.83	89.75	2.01
48.00	7.04	62.00	4.22	76.00	2.81	90.00	2.00
48.25	6.97	62.25	4.19	76.25	2.79	90.25	1.99
48.50	6.90	62.50	4.15	76.50	2.77	90.50	1.98
48.75	6.83	62.75	4.12	76.75	2.75	90.75	1.97
49.00	6.76	63.00	4.09	77.00	2.74	91.00	1.96
49.25	6.69	63.25	4.06	77.25	2.72	91.25	1.95
49.50	6.62	63.50	4.02	77.50	2.70	91.50	1.94
49.75	6.56	63.75	3.99	77.75	2.68	91.75	1.93
50.00	6.49	64.00	3.96	78.00	2.67	92.00	1.92
50.25	6.43	64.25	3.93	78.25	2.65	92.25	1.91
50.50	6.36	64.50	3.90	78.50	2.63	92.50	1.90
50.75	6.30	64.75	3.87	78.75	2.62	92.75	1.89
51.00	6.24	65.00	3.84	79.00	2.60	93.00	1.88
51.25	6.18	65.25	3.81	79.25	2.58	93.25	1.87
51.50	6.12	65.50	3.78	79.50	2.57	93.50	1.86
51.75	6.06	65.75	3.75	79.75	2.55	93.75	1.85
52.00	6.00	66.00	3.73	80.00	2.54	94.00	1.84
52.25	5.94	66.25	3.70	80.25	2.52	94.25	1.83
52.50	5.89	66.50	3.67	80.50	2.50	94.50	1.82
52.75	5.83	66.75	3.64	80.75	2.49	94.75	1.81
53.00	5.78	67.00	3.61	81.00	2.47	95.00	1.80
53.25	5.72	67.25	3.59	81.25	2.46	95.25	1.79
53.50	5.67	67.50	3.56	81.50	2.44	95.50	1.78
53.75	5.62	67.75	3.54	81.75	2.43	95.75	1.77
54.00	5.56	68.00	3.51	82.00	2.41	96.00	1.76

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 90%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 5.28 63.4 Inches

BioInitiative ft. 428.00 5136.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	292078.83	10.25	173.75	20.25	44.52	30.25	19.95
0.50	73019.71	10.50	165.58	20.50	43.44	30.50	19.62
0.75	32453.20	10.75	157.97	20.75	42.40	30.75	19.31
1.00	18254.93	11.00	150.87	21.00	41.39	31.00	19.00
1.25	11683.15	11.25	144.24	21.25	40.43	31.25	18.69
1.50	8113.30	11.50	138.03	21.50	39.49	31.50	18.40
1.75	5960.79	11.75	132.22	21.75	38.59	31.75	18.11
2.00	4563.73	12.00	126.77	22.00	37.72	32.00	17.83
2.25	3605.91	12.25	121.65	22.25	36.87	32.25	17.55
2.50	2920.79	12.50	116.83	22.50	36.06	32.50	17.28
2.75	2413.87	12.75	112.29	22.75	35.27	32.75	17.02
3.00	2028.33	13.00	108.02	23.00	34.51	33.00	16.76
3.25	1728.28	13.25	103.98	23.25	33.77	33.25	16.51
3.50	1490.20	13.50	100.16	23.50	33.06	33.50	16.27
3.75	1298.13	13.75	96.55	23.75	32.36	33.75	16.03
4.00	1140.93	14.00	93.14	24.00	31.69	34.00	15.79
4.25	1010.65	14.25	89.90	24.25	31.04	34.25	15.56
4.50	901.48	14.50	86.82	24.50	30.41	34.50	15.34
4.75	809.08	14.75	83.91	24.75	29.80	34.75	15.12
5.00	730.20	15.00	81.13	25.00	29.21	35.00	14.90
5.25	662.31	15.25	78.49	25.25	28.63	35.25	14.69
5.50	603.47	15.50	75.98	25.50	28.07	35.50	14.49
5.75	552.13	15.75	73.59	25.75	27.53	35.75	14.28
6.00	507.08	16.00	71.31	26.00	27.00	36.00	14.09
6.25	467.33	16.25	69.13	26.25	26.49	36.25	13.89
6.50	432.07	16.50	67.05	26.50	25.99	36.50	13.70
6.75	400.66	16.75	65.07	26.75	25.51	36.75	13.52
7.00	372.55	17.00	63.17	27.00	25.04	37.00	13.33
7.25	347.30	17.25	61.35	27.25	24.58	37.25	13.16
7.50	324.53	17.50	59.61	27.50	24.14	37.50	12.98
7.75	303.93	17.75	57.94	27.75	23.71	37.75	12.81
8.00	285.23	18.00	56.34	28.00	23.28	38.00	12.64
8.25	268.21	18.25	54.81	28.25	22.87	38.25	12.48
8.50	252.66	18.50	53.34	28.50	22.47	38.50	12.32
8.75	238.43	18.75	51.93	28.75	22.09	38.75	12.16
9.00	225.37	19.00	50.57	29.00	21.71	39.00	12.00
9.25	213.35	19.25	49.26	29.25	21.34	39.25	11.85
9.50	202.27	19.50	48.01	29.50	20.98	39.50	11.70
9.75	192.03	19.75	46.80	29.75	20.63	39.75	11.55
10.00	182.55	20.00	45.64	30.00	20.28	40.00	11.41

Notes:

- Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections  

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - S = Power Density uW/cm<sup>2</sup>
  - EIRP = 1.64 \* ERP
  - pi() = 3.1459
  - R = Distance to device
  - TA = Time average
  - %Ref = Percent reflections
- 60 percent reflections is equivalent to OET Bulletin 65 equation (10)
- 100 percent reflections is equivalent to OET Bulletin 65 equation (6)
- Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010
- TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)
- Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 90%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 5.28

63.38 Inches

BioInitiative ft. 428.00

5136.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	11.27	54.25	6.20	68.25	3.92	82.25	2.70
40.50	11.13	54.50	6.15	68.50	3.89	82.50	2.68
40.75	10.99	54.75	6.09	68.75	3.86	82.75	2.67
41.00	10.86	55.00	6.03	69.00	3.83	83.00	2.65
41.25	10.73	55.25	5.98	69.25	3.81	83.25	2.63
41.50	10.60	55.50	5.93	69.50	3.78	83.50	2.62
41.75	10.47	55.75	5.87	69.75	3.75	83.75	2.60
42.00	10.35	56.00	5.82	70.00	3.73	84.00	2.59
42.25	10.23	56.25	5.77	70.25	3.70	84.25	2.57
42.50	10.11	56.50	5.72	70.50	3.67	84.50	2.56
42.75	9.99	56.75	5.67	70.75	3.65	84.75	2.54
43.00	9.87	57.00	5.62	71.00	3.62	85.00	2.53
43.25	9.76	57.25	5.57	71.25	3.60	85.25	2.51
43.50	9.65	57.50	5.52	71.50	3.57	85.50	2.50
43.75	9.54	57.75	5.47	71.75	3.55	85.75	2.48
44.00	9.43	58.00	5.43	72.00	3.52	86.00	2.47
44.25	9.32	58.25	5.38	72.25	3.50	86.25	2.45
44.50	9.22	58.50	5.33	72.50	3.47	86.50	2.44
44.75	9.12	58.75	5.29	72.75	3.45	86.75	2.43
45.00	9.01	59.00	5.24	73.00	3.43	87.00	2.41
45.25	8.92	59.25	5.20	73.25	3.40	87.25	2.40
45.50	8.82	59.50	5.16	73.50	3.38	87.50	2.38
45.75	8.72	59.75	5.11	73.75	3.36	87.75	2.37
46.00	8.63	60.00	5.07	74.00	3.33	88.00	2.36
46.25	8.53	60.25	5.03	74.25	3.31	88.25	2.34
46.50	8.44	60.50	4.99	74.50	3.29	88.50	2.33
46.75	8.35	60.75	4.95	74.75	3.27	88.75	2.32
47.00	8.26	61.00	4.91	75.00	3.25	89.00	2.30
47.25	8.18	61.25	4.87	75.25	3.22	89.25	2.29
47.50	8.09	61.50	4.83	75.50	3.20	89.50	2.28
47.75	8.01	61.75	4.79	75.75	3.18	89.75	2.27
48.00	7.92	62.00	4.75	76.00	3.16	90.00	2.25
48.25	7.84	62.25	4.71	76.25	3.14	90.25	2.24
48.50	7.76	62.50	4.67	76.50	3.12	90.50	2.23
48.75	7.68	62.75	4.64	76.75	3.10	90.75	2.22
49.00	7.60	63.00	4.60	77.00	3.08	91.00	2.20
49.25	7.53	63.25	4.56	77.25	3.06	91.25	2.19
49.50	7.45	63.50	4.53	77.50	3.04	91.50	2.18
49.75	7.38	63.75	4.49	77.75	3.02	91.75	2.17
50.00	7.30	64.00	4.46	78.00	3.00	92.00	2.16
50.25	7.23	64.25	4.42	78.25	2.98	92.25	2.15
50.50	7.16	64.50	4.39	78.50	2.96	92.50	2.13
50.75	7.09	64.75	4.35	78.75	2.94	92.75	2.12
51.00	7.02	65.00	4.32	79.00	2.93	93.00	2.11
51.25	6.95	65.25	4.29	79.25	2.91	93.25	2.10
51.50	6.88	65.50	4.25	79.50	2.89	93.50	2.09
51.75	6.82	65.75	4.22	79.75	2.87	93.75	2.08
52.00	6.75	66.00	4.19	80.00	2.85	94.00	2.07
52.25	6.69	66.25	4.16	80.25	2.83	94.25	2.06
52.50	6.62	66.50	4.13	80.50	2.82	94.50	2.04
52.75	6.56	66.75	4.10	80.75	2.80	94.75	2.03
53.00	6.50	67.00	4.07	81.00	2.78	95.00	2.02
53.25	6.44	67.25	4.04	81.25	2.77	95.25	2.01
53.50	6.38	67.50	4.01	81.50	2.75	95.50	2.00
53.75	6.32	67.75	3.98	81.75	2.73	95.75	1.99
54.00	6.26	68.00	3.95	82.00	2.71	96.00	1.98

Table 4 – 90%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 100%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 5.57

66.8 Inches

BioInitiative ft. 450.00

5400.0 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
0.25	324532.04	10.25	193.06	20.25	49.46	30.25	22.17
0.50	81133.01	10.50	183.98	20.50	48.26	30.50	21.80
0.75	36059.12	10.75	175.52	20.75	47.11	30.75	21.45
1.00	20283.25	11.00	167.63	21.00	45.99	31.00	21.11
1.25	12981.28	11.25	160.26	21.25	44.92	31.25	20.77
1.50	9014.78	11.50	153.37	21.50	43.88	31.50	20.44
1.75	6623.10	11.75	146.91	21.75	42.88	31.75	20.12
2.00	5070.81	12.00	140.86	22.00	41.91	32.00	19.81
2.25	4006.57	12.25	135.17	22.25	40.97	32.25	19.50
2.50	3245.32	12.50	129.81	22.50	40.07	32.50	19.20
2.75	2682.08	12.75	124.77	22.75	39.19	32.75	18.91
3.00	2253.69	13.00	120.02	23.00	38.34	33.00	18.63
3.25	1920.31	13.25	115.53	23.25	37.52	33.25	18.35
3.50	1655.78	13.50	111.29	23.50	36.73	33.50	18.07
3.75	1442.36	13.75	107.28	23.75	35.96	33.75	17.81
4.00	1267.70	14.00	103.49	24.00	35.21	34.00	17.55
4.25	1122.95	14.25	99.89	24.25	34.49	34.25	17.29
4.50	1001.64	14.50	96.47	24.50	33.79	34.50	17.04
4.75	898.98	14.75	93.23	24.75	33.11	34.75	16.80
5.00	811.33	15.00	90.15	25.00	32.45	35.00	16.56
5.25	735.90	15.25	87.22	25.25	31.81	35.25	16.32
5.50	670.52	15.50	84.43	25.50	31.19	35.50	16.09
5.75	613.48	15.75	81.77	25.75	30.59	35.75	15.87
6.00	563.42	16.00	79.23	26.00	30.00	36.00	15.65
6.25	519.25	16.25	76.81	26.25	29.44	36.25	15.44
6.50	480.08	16.50	74.50	26.50	28.88	36.50	15.22
6.75	445.17	16.75	72.29	26.75	28.35	36.75	15.02
7.00	413.94	17.00	70.18	27.00	27.82	37.00	14.82
7.25	385.89	17.25	68.16	27.25	27.32	37.25	14.62
7.50	360.59	17.50	66.23	27.50	26.82	37.50	14.42
7.75	337.70	17.75	64.38	27.75	26.34	37.75	14.23
8.00	316.93	18.00	62.60	28.00	25.87	38.00	14.05
8.25	298.01	18.25	60.90	28.25	25.42	38.25	13.86
8.50	280.74	18.50	59.26	28.50	24.97	38.50	13.68
8.75	264.92	18.75	57.69	28.75	24.54	38.75	13.51
9.00	250.41	19.00	56.19	29.00	24.12	39.00	13.34
9.25	237.06	19.25	54.74	29.25	23.71	39.25	13.17
9.50	224.75	19.50	53.34	29.50	23.31	39.50	13.00
9.75	213.37	19.75	52.00	29.75	22.92	39.75	12.84
10.00	202.83	20.00	50.71	30.00	22.54	40.00	12.68

Notes:

1) Formula OET Bulletin 65 equation (3) modified to include the effects of time averaged output and % reflections

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi(R)^2)$$

$$S = \text{Power Density uW/cm}^2$$

$$\text{EIRP} = 1.64 \cdot \text{ERP}$$

$$\pi() = 3.1459$$

$$R = \text{Distance to device}$$

$$\text{TA} = \text{Time average}$$

$$\% \text{Ref} = \text{Percent reflections}$$

2) 60 percent reflections is equivalent to OET Bulletin 65 equation (10)

3) 100 percent reflections is equivalent to OET Bulletin 65 equation (6)

4) Collector meter ERP RFLAN-C = 0.189 W, ZigBee = 0.057 W, GSM = 0.733 W per Edison SmartConnect Community Meeting, Montecito, CA dated February 10, 2010

5) TPO 0.267 watts at 902.25 to 927.75 MHz from TCB Grant of Equipment Authorization (SK9AMI-4)

6) Antenna Gain 2.2dBi at 914.74 MHz per ACS Certification FCC ID: SK9AMI-4 RFLAN & RFLAN-E ERP = 0.270 W

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 2000% reflections)

Meters 1 Electric Meter

Time Avg: 100%

% Reflection 2000%

Distance where limits are exceeded

FCC ft. 5.57

66.80 Inches

BioInitiative ft. 450.00

5400.00 Inches

Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>	Distance (ft)	uW/cm <sup>2</sup>
40.25	12.52	54.25	6.89	68.25	4.35	82.25	3.00
40.50	12.37	54.50	6.83	68.50	4.32	82.50	2.98
40.75	12.21	54.75	6.77	68.75	4.29	82.75	2.96
41.00	12.07	55.00	6.71	69.00	4.26	83.00	2.94
41.25	11.92	55.25	6.64	69.25	4.23	83.25	2.93
41.50	11.78	55.50	6.58	69.50	4.20	83.50	2.91
41.75	11.64	55.75	6.53	69.75	4.17	83.75	2.89
42.00	11.50	56.00	6.47	70.00	4.14	84.00	2.87
42.25	11.36	56.25	6.41	70.25	4.11	84.25	2.86
42.50	11.23	56.50	6.35	70.50	4.08	84.50	2.84
42.75	11.10	56.75	6.30	70.75	4.05	84.75	2.82
43.00	10.97	57.00	6.24	71.00	4.02	85.00	2.81
43.25	10.84	57.25	6.19	71.25	4.00	85.25	2.79
43.50	10.72	57.50	6.13	71.50	3.97	85.50	2.77
43.75	10.60	57.75	6.08	71.75	3.94	85.75	2.76
44.00	10.48	58.00	6.03	72.00	3.91	86.00	2.74
44.25	10.36	58.25	5.98	72.25	3.89	86.25	2.73
44.50	10.24	58.50	5.93	72.50	3.86	86.50	2.71
44.75	10.13	58.75	5.88	72.75	3.83	86.75	2.70
45.00	10.02	59.00	5.83	73.00	3.81	87.00	2.68
45.25	9.91	59.25	5.78	73.25	3.78	87.25	2.66
45.50	9.80	59.50	5.73	73.50	3.75	87.50	2.65
45.75	9.69	59.75	5.68	73.75	3.73	87.75	2.63
46.00	9.59	60.00	5.63	74.00	3.70	88.00	2.62
46.25	9.48	60.25	5.59	74.25	3.68	88.25	2.60
46.50	9.38	60.50	5.54	74.50	3.65	88.50	2.59
46.75	9.28	60.75	5.50	74.75	3.63	88.75	2.58
47.00	9.18	61.00	5.45	75.00	3.61	89.00	2.56
47.25	9.09	61.25	5.41	75.25	3.58	89.25	2.55
47.50	8.99	61.50	5.36	75.50	3.56	89.50	2.53
47.75	8.90	61.75	5.32	75.75	3.53	89.75	2.52
48.00	8.80	62.00	5.28	76.00	3.51	90.00	2.50
48.25	8.71	62.25	5.23	76.25	3.49	90.25	2.49
48.50	8.62	62.50	5.19	76.50	3.47	90.50	2.48
48.75	8.53	62.75	5.15	76.75	3.44	90.75	2.46
49.00	8.45	63.00	5.11	77.00	3.42	91.00	2.45
49.25	8.36	63.25	5.07	77.25	3.40	91.25	2.44
49.50	8.28	63.50	5.03	77.50	3.38	91.50	2.42
49.75	8.20	63.75	4.99	77.75	3.36	91.75	2.41
50.00	8.11	64.00	4.95	78.00	3.33	92.00	2.40
50.25	8.03	64.25	4.91	78.25	3.31	92.25	2.38
50.50	7.95	64.50	4.88	78.50	3.29	92.50	2.37
50.75	7.88	64.75	4.84	78.75	3.27	92.75	2.36
51.00	7.80	65.00	4.80	79.00	3.25	93.00	2.35
51.25	7.72	65.25	4.76	79.25	3.23	93.25	2.33
51.50	7.65	65.50	4.73	79.50	3.21	93.50	2.32
51.75	7.57	65.75	4.69	79.75	3.19	93.75	2.31
52.00	7.50	66.00	4.66	80.00	3.17	94.00	2.30
52.25	7.43	66.25	4.62	80.25	3.15	94.25	2.28
52.50	7.36	66.50	4.59	80.50	3.13	94.50	2.27
52.75	7.29	66.75	4.55	80.75	3.11	94.75	2.26
53.00	7.22	67.00	4.52	81.00	3.09	95.00	2.25
53.25	7.15	67.25	4.48	81.25	3.07	95.25	2.24
53.50	7.09	67.50	4.45	81.50	3.05	95.50	2.22
53.75	7.02	67.75	4.42	81.75	3.04	95.75	2.21
54.00	6.96	68.00	4.39	82.00	3.02	96.00	2.20

Table 4 – 100%