

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 1%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 0.29

3.5 Inches

BioInitiative ft. 23.60

283.2 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	890.44	10.25	0.53	20.25	0.14	30.25	0.06
0.50	222.61	10.50	0.50	20.50	0.13	30.50	0.06
0.75	98.94	10.75	0.48	20.75	0.13	30.75	0.06
1.00	55.65	11.00	0.46	21.00	0.13	31.00	0.06
1.25	35.62	11.25	0.44	21.25	0.12	31.25	0.06
1.50	24.73	11.50	0.42	21.50	0.12	31.50	0.06
1.75	18.17	11.75	0.40	21.75	0.12	31.75	0.06
2.00	13.91	12.00	0.39	22.00	0.11	32.00	0.05
2.25	10.99	12.25	0.37	22.25	0.11	32.25	0.05
2.50	8.90	12.50	0.36	22.50	0.11	32.50	0.05
2.75	7.36	12.75	0.34	22.75	0.11	32.75	0.05
3.00	6.18	13.00	0.33	23.00	0.11	33.00	0.05
3.25	5.27	13.25	0.32	23.25	0.10	33.25	0.05
3.50	4.54	13.50	0.31	23.50	0.10	33.50	0.05
3.75	3.96	13.75	0.29	23.75	0.10	33.75	0.05
4.00	3.48	14.00	0.28	24.00	0.10	34.00	0.05
4.25	3.08	14.25	0.27	24.25	0.09	34.25	0.05
4.50	2.75	14.50	0.26	24.50	0.09	34.50	0.05
4.75	2.47	14.75	0.26	24.75	0.09	34.75	0.05
5.00	2.23	15.00	0.25	25.00	0.09	35.00	0.05
5.25	2.02	15.25	0.24	25.25	0.09	35.25	0.04
5.50	1.84	15.50	0.23	25.50	0.09	35.50	0.04
5.75	1.68	15.75	0.22	25.75	0.08	35.75	0.04
6.00	1.55	16.00	0.22	26.00	0.08	36.00	0.04
6.25	1.42	16.25	0.21	26.25	0.08	36.25	0.04
6.50	1.32	16.50	0.20	26.50	0.08	36.50	0.04
6.75	1.22	16.75	0.20	26.75	0.08	36.75	0.04
7.00	1.14	17.00	0.19	27.00	0.08	37.00	0.04
7.25	1.06	17.25	0.19	27.25	0.07	37.25	0.04
7.50	0.99	17.50	0.18	27.50	0.07	37.50	0.04
7.75	0.93	17.75	0.18	27.75	0.07	37.75	0.04
8.00	0.87	18.00	0.17	28.00	0.07	38.00	0.04
8.25	0.82	18.25	0.17	28.25	0.07	38.25	0.04
8.50	0.77	18.50	0.16	28.50	0.07	38.50	0.04
8.75	0.73	18.75	0.16	28.75	0.07	38.75	0.04
9.00	0.69	19.00	0.15	29.00	0.07	39.00	0.04
9.25	0.65	19.25	0.15	29.25	0.07	39.25	0.04
9.50	0.62	19.50	0.15	29.50	0.06	39.50	0.04
9.75	0.59	19.75	0.14	29.75	0.06	39.75	0.04
10.00	0.56	20.00	0.14	30.00	0.06	40.00	0.03

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

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 1%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 0.29

3.50 Inches

BioInitiative ft. 23.60

283.20 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	0.03	54.25	0.02	68.25	0.01	82.25	0.01
40.50	0.03	54.50	0.02	68.50	0.01	82.50	0.01
40.75	0.03	54.75	0.02	68.75	0.01	82.75	0.01
41.00	0.03	55.00	0.02	69.00	0.01	83.00	0.01
41.25	0.03	55.25	0.02	69.25	0.01	83.25	0.01
41.50	0.03	55.50	0.02	69.50	0.01	83.50	0.01
41.75	0.03	55.75	0.02	69.75	0.01	83.75	0.01
42.00	0.03	56.00	0.02	70.00	0.01	84.00	0.01
42.25	0.03	56.25	0.02	70.25	0.01	84.25	0.01
42.50	0.03	56.50	0.02	70.50	0.01	84.50	0.01
42.75	0.03	56.75	0.02	70.75	0.01	84.75	0.01
43.00	0.03	57.00	0.02	71.00	0.01	85.00	0.01
43.25	0.03	57.25	0.02	71.25	0.01	85.25	0.01
43.50	0.03	57.50	0.02	71.50	0.01	85.50	0.01
43.75	0.03	57.75	0.02	71.75	0.01	85.75	0.01
44.00	0.03	58.00	0.02	72.00	0.01	86.00	0.01
44.25	0.03	58.25	0.02	72.25	0.01	86.25	0.01
44.50	0.03	58.50	0.02	72.50	0.01	86.50	0.01
44.75	0.03	58.75	0.02	72.75	0.01	86.75	0.01
45.00	0.03	59.00	0.02	73.00	0.01	87.00	0.01
45.25	0.03	59.25	0.02	73.25	0.01	87.25	0.01
45.50	0.03	59.50	0.02	73.50	0.01	87.50	0.01
45.75	0.03	59.75	0.02	73.75	0.01	87.75	0.01
46.00	0.03	60.00	0.02	74.00	0.01	88.00	0.01
46.25	0.03	60.25	0.02	74.25	0.01	88.25	0.01
46.50	0.03	60.50	0.02	74.50	0.01	88.50	0.01
46.75	0.03	60.75	0.02	74.75	0.01	88.75	0.01
47.00	0.03	61.00	0.01	75.00	0.01	89.00	0.01
47.25	0.02	61.25	0.01	75.25	0.01	89.25	0.01
47.50	0.02	61.50	0.01	75.50	0.01	89.50	0.01
47.75	0.02	61.75	0.01	75.75	0.01	89.75	0.01
48.00	0.02	62.00	0.01	76.00	0.01	90.00	0.01
48.25	0.02	62.25	0.01	76.25	0.01	90.25	0.01
48.50	0.02	62.50	0.01	76.50	0.01	90.50	0.01
48.75	0.02	62.75	0.01	76.75	0.01	90.75	0.01
49.00	0.02	63.00	0.01	77.00	0.01	91.00	0.01
49.25	0.02	63.25	0.01	77.25	0.01	91.25	0.01
49.50	0.02	63.50	0.01	77.50	0.01	91.50	0.01
49.75	0.02	63.75	0.01	77.75	0.01	91.75	0.01
50.00	0.02	64.00	0.01	78.00	0.01	92.00	0.01
50.25	0.02	64.25	0.01	78.25	0.01	92.25	0.01
50.50	0.02	64.50	0.01	78.50	0.01	92.50	0.01
50.75	0.02	64.75	0.01	78.75	0.01	92.75	0.01
51.00	0.02	65.00	0.01	79.00	0.01	93.00	0.01
51.25	0.02	65.25	0.01	79.25	0.01	93.25	0.01
51.50	0.02	65.50	0.01	79.50	0.01	93.50	0.01
51.75	0.02	65.75	0.01	79.75	0.01	93.75	0.01
52.00	0.02	66.00	0.01	80.00	0.01	94.00	0.01
52.25	0.02	66.25	0.01	80.25	0.01	94.25	0.01
52.50	0.02	66.50	0.01	80.50	0.01	94.50	0.01
52.75	0.02	66.75	0.01	80.75	0.01	94.75	0.01
53.00	0.02	67.00	0.01	81.00	0.01	95.00	0.01
53.25	0.02	67.25	0.01	81.25	0.01	95.25	0.01
53.50	0.02	67.50	0.01	81.50	0.01	95.50	0.01
53.75	0.02	67.75	0.01	81.75	0.01	95.75	0.01
54.00	0.02	68.00	0.01	82.00	0.01	96.00	0.01

Table 3 – 1%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 10%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 0.92 11.1 Inches

BioInitiative ft. 74.50 894.0 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	8904.39	10.25	5.30	20.25	1.36	30.25	0.61
0.50	2226.10	10.50	5.05	20.50	1.32	30.50	0.60
0.75	989.38	10.75	4.82	20.75	1.29	30.75	0.59
1.00	556.52	11.00	4.60	21.00	1.26	31.00	0.58
1.25	356.18	11.25	4.40	21.25	1.23	31.25	0.57
1.50	247.34	11.50	4.21	21.50	1.20	31.50	0.56
1.75	181.72	11.75	4.03	21.75	1.18	31.75	0.55
2.00	139.13	12.00	3.86	22.00	1.15	32.00	0.54
2.25	109.93	12.25	3.71	22.25	1.12	32.25	0.54
2.50	89.04	12.50	3.56	22.50	1.10	32.50	0.53
2.75	73.59	12.75	3.42	22.75	1.08	32.75	0.52
3.00	61.84	13.00	3.29	23.00	1.05	33.00	0.51
3.25	52.69	13.25	3.17	23.25	1.03	33.25	0.50
3.50	45.43	13.50	3.05	23.50	1.01	33.50	0.50
3.75	39.58	13.75	2.94	23.75	0.99	33.75	0.49
4.00	34.78	14.00	2.84	24.00	0.97	34.00	0.48
4.25	30.81	14.25	2.74	24.25	0.95	34.25	0.47
4.50	27.48	14.50	2.65	24.50	0.93	34.50	0.47
4.75	24.67	14.75	2.56	24.75	0.91	34.75	0.46
5.00	22.26	15.00	2.47	25.00	0.89	35.00	0.45
5.25	20.19	15.25	2.39	25.25	0.87	35.25	0.45
5.50	18.40	15.50	2.32	25.50	0.86	35.50	0.44
5.75	16.83	15.75	2.24	25.75	0.84	35.75	0.44
6.00	15.46	16.00	2.17	26.00	0.82	36.00	0.43
6.25	14.25	16.25	2.11	26.25	0.81	36.25	0.42
6.50	13.17	16.50	2.04	26.50	0.79	36.50	0.42
6.75	12.21	16.75	1.98	26.75	0.78	36.75	0.41
7.00	11.36	17.00	1.93	27.00	0.76	37.00	0.41
7.25	10.59	17.25	1.87	27.25	0.75	37.25	0.40
7.50	9.89	17.50	1.82	27.50	0.74	37.50	0.40
7.75	9.27	17.75	1.77	27.75	0.72	37.75	0.39
8.00	8.70	18.00	1.72	28.00	0.71	38.00	0.39
8.25	8.18	18.25	1.67	28.25	0.70	38.25	0.38
8.50	7.70	18.50	1.63	28.50	0.69	38.50	0.38
8.75	7.27	18.75	1.58	28.75	0.67	38.75	0.37
9.00	6.87	19.00	1.54	29.00	0.66	39.00	0.37
9.25	6.50	19.25	1.50	29.25	0.65	39.25	0.36
9.50	6.17	19.50	1.46	29.50	0.64	39.50	0.36
9.75	5.85	19.75	1.43	29.75	0.63	39.75	0.35
10.00	5.57	20.00	1.39	30.00	0.62	40.00	0.35

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 – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 10%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 0.92

11.07 Inches

BioInitiative ft. 74.50

894.00 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	0.34	54.25	0.19	68.25	0.12	82.25	0.08
40.50	0.34	54.50	0.19	68.50	0.12	82.50	0.08
40.75	0.34	54.75	0.19	68.75	0.12	82.75	0.08
41.00	0.33	55.00	0.18	69.00	0.12	83.00	0.08
41.25	0.33	55.25	0.18	69.25	0.12	83.25	0.08
41.50	0.32	55.50	0.18	69.50	0.12	83.50	0.08
41.75	0.32	55.75	0.18	69.75	0.11	83.75	0.08
42.00	0.32	56.00	0.18	70.00	0.11	84.00	0.08
42.25	0.31	56.25	0.18	70.25	0.11	84.25	0.08
42.50	0.31	56.50	0.17	70.50	0.11	84.50	0.08
42.75	0.30	56.75	0.17	70.75	0.11	84.75	0.08
43.00	0.30	57.00	0.17	71.00	0.11	85.00	0.08
43.25	0.30	57.25	0.17	71.25	0.11	85.25	0.08
43.50	0.29	57.50	0.17	71.50	0.11	85.50	0.08
43.75	0.29	57.75	0.17	71.75	0.11	85.75	0.08
44.00	0.29	58.00	0.17	72.00	0.11	86.00	0.08
44.25	0.28	58.25	0.16	72.25	0.11	86.25	0.07
44.50	0.28	58.50	0.16	72.50	0.11	86.50	0.07
44.75	0.28	58.75	0.16	72.75	0.11	86.75	0.07
45.00	0.27	59.00	0.16	73.00	0.10	87.00	0.07
45.25	0.27	59.25	0.16	73.25	0.10	87.25	0.07
45.50	0.27	59.50	0.16	73.50	0.10	87.50	0.07
45.75	0.27	59.75	0.16	73.75	0.10	87.75	0.07
46.00	0.26	60.00	0.15	74.00	0.10	88.00	0.07
46.25	0.26	60.25	0.15	74.25	0.10	88.25	0.07
46.50	0.26	60.50	0.15	74.50	0.10	88.50	0.07
46.75	0.25	60.75	0.15	74.75	0.10	88.75	0.07
47.00	0.25	61.00	0.15	75.00	0.10	89.00	0.07
47.25	0.25	61.25	0.15	75.25	0.10	89.25	0.07
47.50	0.25	61.50	0.15	75.50	0.10	89.50	0.07
47.75	0.24	61.75	0.15	75.75	0.10	89.75	0.07
48.00	0.24	62.00	0.14	76.00	0.10	90.00	0.07
48.25	0.24	62.25	0.14	76.25	0.10	90.25	0.07
48.50	0.24	62.50	0.14	76.50	0.10	90.50	0.07
48.75	0.23	62.75	0.14	76.75	0.09	90.75	0.07
49.00	0.23	63.00	0.14	77.00	0.09	91.00	0.07
49.25	0.23	63.25	0.14	77.25	0.09	91.25	0.07
49.50	0.23	63.50	0.14	77.50	0.09	91.50	0.07
49.75	0.22	63.75	0.14	77.75	0.09	91.75	0.07
50.00	0.22	64.00	0.14	78.00	0.09	92.00	0.07
50.25	0.22	64.25	0.13	78.25	0.09	92.25	0.07
50.50	0.22	64.50	0.13	78.50	0.09	92.50	0.07
50.75	0.22	64.75	0.13	78.75	0.09	92.75	0.06
51.00	0.21	65.00	0.13	79.00	0.09	93.00	0.06
51.25	0.21	65.25	0.13	79.25	0.09	93.25	0.06
51.50	0.21	65.50	0.13	79.50	0.09	93.50	0.06
51.75	0.21	65.75	0.13	79.75	0.09	93.75	0.06
52.00	0.21	66.00	0.13	80.00	0.09	94.00	0.06
52.25	0.20	66.25	0.13	80.25	0.09	94.25	0.06
52.50	0.20	66.50	0.13	80.50	0.09	94.50	0.06
52.75	0.20	66.75	0.12	80.75	0.09	94.75	0.06
53.00	0.20	67.00	0.12	81.00	0.08	95.00	0.06
53.25	0.20	67.25	0.12	81.25	0.08	95.25	0.06
53.50	0.19	67.50	0.12	81.50	0.08	95.50	0.06
53.75	0.19	67.75	0.12	81.75	0.08	95.75	0.06
54.00	0.19	68.00	0.12	82.00	0.08	96.00	0.06

Table 3 – 10%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 20%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 1.30 15.6 Inches

BioInitiative ft. 105.60 1267.2 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	17808.79	10.25	10.59	20.25	2.71	30.25	1.22
0.50	4452.20	10.50	10.10	20.50	2.65	30.50	1.20
0.75	1978.75	10.75	9.63	20.75	2.59	30.75	1.18
1.00	1113.05	11.00	9.20	21.00	2.52	31.00	1.16
1.25	712.35	11.25	8.79	21.25	2.46	31.25	1.14
1.50	494.69	11.50	8.42	21.50	2.41	31.50	1.12
1.75	363.44	11.75	8.06	21.75	2.35	31.75	1.10
2.00	278.26	12.00	7.73	22.00	2.30	32.00	1.09
2.25	219.86	12.25	7.42	22.25	2.25	32.25	1.07
2.50	178.09	12.50	7.12	22.50	2.20	32.50	1.05
2.75	147.18	12.75	6.85	22.75	2.15	32.75	1.04
3.00	123.67	13.00	6.59	23.00	2.10	33.00	1.02
3.25	105.38	13.25	6.34	23.25	2.06	33.25	1.01
3.50	90.86	13.50	6.11	23.50	2.02	33.50	0.99
3.75	79.15	13.75	5.89	23.75	1.97	33.75	0.98
4.00	69.57	14.00	5.68	24.00	1.93	34.00	0.96
4.25	61.62	14.25	5.48	24.25	1.89	34.25	0.95
4.50	54.97	14.50	5.29	24.50	1.85	34.50	0.94
4.75	49.33	14.75	5.12	24.75	1.82	34.75	0.92
5.00	44.52	15.00	4.95	25.00	1.78	35.00	0.91
5.25	40.38	15.25	4.79	25.25	1.75	35.25	0.90
5.50	36.80	15.50	4.63	25.50	1.71	35.50	0.88
5.75	33.67	15.75	4.49	25.75	1.68	35.75	0.87
6.00	30.92	16.00	4.35	26.00	1.65	36.00	0.86
6.25	28.49	16.25	4.22	26.25	1.62	36.25	0.85
6.50	26.34	16.50	4.09	26.50	1.58	36.50	0.84
6.75	24.43	16.75	3.97	26.75	1.56	36.75	0.82
7.00	22.72	17.00	3.85	27.00	1.53	37.00	0.81
7.25	21.18	17.25	3.74	27.25	1.50	37.25	0.80
7.50	19.79	17.50	3.63	27.50	1.47	37.50	0.79
7.75	18.53	17.75	3.53	27.75	1.45	37.75	0.78
8.00	17.39	18.00	3.44	28.00	1.42	38.00	0.77
8.25	16.35	18.25	3.34	28.25	1.39	38.25	0.76
8.50	15.41	18.50	3.25	28.50	1.37	38.50	0.75
8.75	14.54	18.75	3.17	28.75	1.35	38.75	0.74
9.00	13.74	19.00	3.08	29.00	1.32	39.00	0.73
9.25	13.01	19.25	3.00	29.25	1.30	39.25	0.72
9.50	12.33	19.50	2.93	29.50	1.28	39.50	0.71
9.75	11.71	19.75	2.85	29.75	1.26	39.75	0.70
10.00	11.13	20.00	2.78	30.00	1.24	40.00	0.70

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 – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 20%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 1.30

15.65 Inches

BioInitiative ft. 105.60

1267.20 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	0.69	54.25	0.38	68.25	0.24	82.25	0.16
40.50	0.68	54.50	0.37	68.50	0.24	82.50	0.16
40.75	0.67	54.75	0.37	68.75	0.24	82.75	0.16
41.00	0.66	55.00	0.37	69.00	0.23	83.00	0.16
41.25	0.65	55.25	0.36	69.25	0.23	83.25	0.16
41.50	0.65	55.50	0.36	69.50	0.23	83.50	0.16
41.75	0.64	55.75	0.36	69.75	0.23	83.75	0.16
42.00	0.63	56.00	0.35	70.00	0.23	84.00	0.16
42.25	0.62	56.25	0.35	70.25	0.23	84.25	0.16
42.50	0.62	56.50	0.35	70.50	0.22	84.50	0.16
42.75	0.61	56.75	0.35	70.75	0.22	84.75	0.15
43.00	0.60	57.00	0.34	71.00	0.22	85.00	0.15
43.25	0.60	57.25	0.34	71.25	0.22	85.25	0.15
43.50	0.59	57.50	0.34	71.50	0.22	85.50	0.15
43.75	0.58	57.75	0.33	71.75	0.22	85.75	0.15
44.00	0.57	58.00	0.33	72.00	0.21	86.00	0.15
44.25	0.57	58.25	0.33	72.25	0.21	86.25	0.15
44.50	0.56	58.50	0.33	72.50	0.21	86.50	0.15
44.75	0.56	58.75	0.32	72.75	0.21	86.75	0.15
45.00	0.55	59.00	0.32	73.00	0.21	87.00	0.15
45.25	0.54	59.25	0.32	73.25	0.21	87.25	0.15
45.50	0.54	59.50	0.31	73.50	0.21	87.50	0.15
45.75	0.53	59.75	0.31	73.75	0.20	87.75	0.14
46.00	0.53	60.00	0.31	74.00	0.20	88.00	0.14
46.25	0.52	60.25	0.31	74.25	0.20	88.25	0.14
46.50	0.51	60.50	0.30	74.50	0.20	88.50	0.14
46.75	0.51	60.75	0.30	74.75	0.20	88.75	0.14
47.00	0.50	61.00	0.30	75.00	0.20	89.00	0.14
47.25	0.50	61.25	0.30	75.25	0.20	89.25	0.14
47.50	0.49	61.50	0.29	75.50	0.20	89.50	0.14
47.75	0.49	61.75	0.29	75.75	0.19	89.75	0.14
48.00	0.48	62.00	0.29	76.00	0.19	90.00	0.14
48.25	0.48	62.25	0.29	76.25	0.19	90.25	0.14
48.50	0.47	62.50	0.28	76.50	0.19	90.50	0.14
48.75	0.47	62.75	0.28	76.75	0.19	90.75	0.14
49.00	0.46	63.00	0.28	77.00	0.19	91.00	0.13
49.25	0.46	63.25	0.28	77.25	0.19	91.25	0.13
49.50	0.45	63.50	0.28	77.50	0.19	91.50	0.13
49.75	0.45	63.75	0.27	77.75	0.18	91.75	0.13
50.00	0.45	64.00	0.27	78.00	0.18	92.00	0.13
50.25	0.44	64.25	0.27	78.25	0.18	92.25	0.13
50.50	0.44	64.50	0.27	78.50	0.18	92.50	0.13
50.75	0.43	64.75	0.27	78.75	0.18	92.75	0.13
51.00	0.43	65.00	0.26	79.00	0.18	93.00	0.13
51.25	0.42	65.25	0.26	79.25	0.18	93.25	0.13
51.50	0.42	65.50	0.26	79.50	0.18	93.50	0.13
51.75	0.42	65.75	0.26	79.75	0.18	93.75	0.13
52.00	0.41	66.00	0.26	80.00	0.17	94.00	0.13
52.25	0.41	66.25	0.25	80.25	0.17	94.25	0.13
52.50	0.40	66.50	0.25	80.50	0.17	94.50	0.12
52.75	0.40	66.75	0.25	80.75	0.17	94.75	0.12
53.00	0.40	67.00	0.25	81.00	0.17	95.00	0.12
53.25	0.39	67.25	0.25	81.25	0.17	95.25	0.12
53.50	0.39	67.50	0.24	81.50	0.17	95.50	0.12
53.75	0.39	67.75	0.24	81.75	0.17	95.75	0.12
54.00	0.38	68.00	0.24	82.00	0.17	96.00	0.12

Table 3 – 20%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 30%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 1.60 19.2 Inches

BioInitiative ft. 129.00 1548.0 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	26713.18	10.25	15.89	20.25	4.07	30.25	1.82
0.50	6678.30	10.50	15.14	20.50	3.97	30.50	1.79
0.75	2968.13	10.75	14.45	20.75	3.88	30.75	1.77
1.00	1669.57	11.00	13.80	21.00	3.79	31.00	1.74
1.25	1068.53	11.25	13.19	21.25	3.70	31.25	1.71
1.50	742.03	11.50	12.62	21.50	3.61	31.50	1.68
1.75	545.17	11.75	12.09	21.75	3.53	31.75	1.66
2.00	417.39	12.00	11.59	22.00	3.45	32.00	1.63
2.25	329.79	12.25	11.13	22.25	3.37	32.25	1.61
2.50	267.13	12.50	10.69	22.50	3.30	32.50	1.58
2.75	220.77	12.75	10.27	22.75	3.23	32.75	1.56
3.00	185.51	13.00	9.88	23.00	3.16	33.00	1.53
3.25	158.07	13.25	9.51	23.25	3.09	33.25	1.51
3.50	136.29	13.50	9.16	23.50	3.02	33.50	1.49
3.75	118.73	13.75	8.83	23.75	2.96	33.75	1.47
4.00	104.35	14.00	8.52	24.00	2.90	34.00	1.44
4.25	92.43	14.25	8.22	24.25	2.84	34.25	1.42
4.50	82.45	14.50	7.94	24.50	2.78	34.50	1.40
4.75	74.00	14.75	7.67	24.75	2.73	34.75	1.38
5.00	66.78	15.00	7.42	25.00	2.67	35.00	1.36
5.25	60.57	15.25	7.18	25.25	2.62	35.25	1.34
5.50	55.19	15.50	6.95	25.50	2.57	35.50	1.32
5.75	50.50	15.75	6.73	25.75	2.52	35.75	1.31
6.00	46.38	16.00	6.52	26.00	2.47	36.00	1.29
6.25	42.74	16.25	6.32	26.25	2.42	36.25	1.27
6.50	39.52	16.50	6.13	26.50	2.38	36.50	1.25
6.75	36.64	16.75	5.95	26.75	2.33	36.75	1.24
7.00	34.07	17.00	5.78	27.00	2.29	37.00	1.22
7.25	31.76	17.25	5.61	27.25	2.25	37.25	1.20
7.50	29.68	17.50	5.45	27.50	2.21	37.50	1.19
7.75	27.80	17.75	5.30	27.75	2.17	37.75	1.17
8.00	26.09	18.00	5.15	28.00	2.13	38.00	1.16
8.25	24.53	18.25	5.01	28.25	2.09	38.25	1.14
8.50	23.11	18.50	4.88	28.50	2.06	38.50	1.13
8.75	21.81	18.75	4.75	28.75	2.02	38.75	1.11
9.00	20.61	19.00	4.62	29.00	1.99	39.00	1.10
9.25	19.51	19.25	4.51	29.25	1.95	39.25	1.08
9.50	18.50	19.50	4.39	29.50	1.92	39.50	1.07
9.75	17.56	19.75	4.28	29.75	1.89	39.75	1.06
10.00	16.70	20.00	4.17	30.00	1.86	40.00	1.04

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 – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 30%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 1.60

19.17 Inches

BioInitiative ft. 129.00

1548.00 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	1.03	54.25	0.57	68.25	0.36	82.25	0.25
40.50	1.02	54.50	0.56	68.50	0.36	82.50	0.25
40.75	1.01	54.75	0.56	68.75	0.35	82.75	0.24
41.00	0.99	55.00	0.55	69.00	0.35	83.00	0.24
41.25	0.98	55.25	0.55	69.25	0.35	83.25	0.24
41.50	0.97	55.50	0.54	69.50	0.35	83.50	0.24
41.75	0.96	55.75	0.54	69.75	0.34	83.75	0.24
42.00	0.95	56.00	0.53	70.00	0.34	84.00	0.24
42.25	0.94	56.25	0.53	70.25	0.34	84.25	0.24
42.50	0.92	56.50	0.52	70.50	0.34	84.50	0.23
42.75	0.91	56.75	0.52	70.75	0.33	84.75	0.23
43.00	0.90	57.00	0.51	71.00	0.33	85.00	0.23
43.25	0.89	57.25	0.51	71.25	0.33	85.25	0.23
43.50	0.88	57.50	0.50	71.50	0.33	85.50	0.23
43.75	0.87	57.75	0.50	71.75	0.32	85.75	0.23
44.00	0.86	58.00	0.50	72.00	0.32	86.00	0.23
44.25	0.85	58.25	0.49	72.25	0.32	86.25	0.22
44.50	0.84	58.50	0.49	72.50	0.32	86.50	0.22
44.75	0.83	58.75	0.48	72.75	0.32	86.75	0.22
45.00	0.82	59.00	0.48	73.00	0.31	87.00	0.22
45.25	0.82	59.25	0.48	73.25	0.31	87.25	0.22
45.50	0.81	59.50	0.47	73.50	0.31	87.50	0.22
45.75	0.80	59.75	0.47	73.75	0.31	87.75	0.22
46.00	0.79	60.00	0.46	74.00	0.30	88.00	0.22
46.25	0.78	60.25	0.46	74.25	0.30	88.25	0.21
46.50	0.77	60.50	0.46	74.50	0.30	88.50	0.21
46.75	0.76	60.75	0.45	74.75	0.30	88.75	0.21
47.00	0.76	61.00	0.45	75.00	0.30	89.00	0.21
47.25	0.75	61.25	0.45	75.25	0.29	89.25	0.21
47.50	0.74	61.50	0.44	75.50	0.29	89.50	0.21
47.75	0.73	61.75	0.44	75.75	0.29	89.75	0.21
48.00	0.72	62.00	0.43	76.00	0.29	90.00	0.21
48.25	0.72	62.25	0.43	76.25	0.29	90.25	0.20
48.50	0.71	62.50	0.43	76.50	0.29	90.50	0.20
48.75	0.70	62.75	0.42	76.75	0.28	90.75	0.20
49.00	0.70	63.00	0.42	77.00	0.28	91.00	0.20
49.25	0.69	63.25	0.42	77.25	0.28	91.25	0.20
49.50	0.68	63.50	0.41	77.50	0.28	91.50	0.20
49.75	0.67	63.75	0.41	77.75	0.28	91.75	0.20
50.00	0.67	64.00	0.41	78.00	0.27	92.00	0.20
50.25	0.66	64.25	0.40	78.25	0.27	92.25	0.20
50.50	0.65	64.50	0.40	78.50	0.27	92.50	0.20
50.75	0.65	64.75	0.40	78.75	0.27	92.75	0.19
51.00	0.64	65.00	0.40	79.00	0.27	93.00	0.19
51.25	0.64	65.25	0.39	79.25	0.27	93.25	0.19
51.50	0.63	65.50	0.39	79.50	0.26	93.50	0.19
51.75	0.62	65.75	0.39	79.75	0.26	93.75	0.19
52.00	0.62	66.00	0.38	80.00	0.26	94.00	0.19
52.25	0.61	66.25	0.38	80.25	0.26	94.25	0.19
52.50	0.61	66.50	0.38	80.50	0.26	94.50	0.19
52.75	0.60	66.75	0.37	80.75	0.26	94.75	0.19
53.00	0.59	67.00	0.37	81.00	0.25	95.00	0.18
53.25	0.59	67.25	0.37	81.25	0.25	95.25	0.18
53.50	0.58	67.50	0.37	81.50	0.25	95.50	0.18
53.75	0.58	67.75	0.36	81.75	0.25	95.75	0.18
54.00	0.57	68.00	0.36	82.00	0.25	96.00	0.18

Table 3 – 30%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 40%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 1.84 22.1 Inches

BioInitiative ft. 149.00 1788.0 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	35617.57	10.25	21.19	20.25	5.43	30.25	2.43
0.50	8904.39	10.50	20.19	20.50	5.30	30.50	2.39
0.75	3957.51	10.75	19.26	20.75	5.17	30.75	2.35
1.00	2226.10	11.00	18.40	21.00	5.05	31.00	2.32
1.25	1424.70	11.25	17.59	21.25	4.93	31.25	2.28
1.50	989.38	11.50	16.83	21.50	4.82	31.50	2.24
1.75	726.89	11.75	16.12	21.75	4.71	31.75	2.21
2.00	556.52	12.00	15.46	22.00	4.60	32.00	2.17
2.25	439.72	12.25	14.83	22.25	4.50	32.25	2.14
2.50	356.18	12.50	14.25	22.50	4.40	32.50	2.11
2.75	294.36	12.75	13.69	22.75	4.30	32.75	2.08
3.00	247.34	13.00	13.17	23.00	4.21	33.00	2.04
3.25	210.75	13.25	12.68	23.25	4.12	33.25	2.01
3.50	181.72	13.50	12.21	23.50	4.03	33.50	1.98
3.75	158.30	13.75	11.77	23.75	3.95	33.75	1.95
4.00	139.13	14.00	11.36	24.00	3.86	34.00	1.93
4.25	123.24	14.25	10.96	24.25	3.79	34.25	1.90
4.50	109.93	14.50	10.59	24.50	3.71	34.50	1.87
4.75	98.66	14.75	10.23	24.75	3.63	34.75	1.84
5.00	89.04	15.00	9.89	25.00	3.56	35.00	1.82
5.25	80.77	15.25	9.57	25.25	3.49	35.25	1.79
5.50	73.59	15.50	9.27	25.50	3.42	35.50	1.77
5.75	67.33	15.75	8.97	25.75	3.36	35.75	1.74
6.00	61.84	16.00	8.70	26.00	3.29	36.00	1.72
6.25	56.99	16.25	8.43	26.25	3.23	36.25	1.69
6.50	52.69	16.50	8.18	26.50	3.17	36.50	1.67
6.75	48.86	16.75	7.93	26.75	3.11	36.75	1.65
7.00	45.43	17.00	7.70	27.00	3.05	37.00	1.63
7.25	42.35	17.25	7.48	27.25	3.00	37.25	1.60
7.50	39.58	17.50	7.27	27.50	2.94	37.50	1.58
7.75	37.06	17.75	7.07	27.75	2.89	37.75	1.56
8.00	34.78	18.00	6.87	28.00	2.84	38.00	1.54
8.25	32.71	18.25	6.68	28.25	2.79	38.25	1.52
8.50	30.81	18.50	6.50	28.50	2.74	38.50	1.50
8.75	29.08	18.75	6.33	28.75	2.69	38.75	1.48
9.00	27.48	19.00	6.17	29.00	2.65	39.00	1.46
9.25	26.02	19.25	6.01	29.25	2.60	39.25	1.44
9.50	24.67	19.50	5.85	29.50	2.56	39.50	1.43
9.75	23.42	19.75	5.71	29.75	2.52	39.75	1.41
10.00	22.26	20.00	5.57	30.00	2.47	40.00	1.39

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 – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 40%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 1.84

22.13 Inches

BioInitiative ft. 149.00

1788.00 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	1.37	54.25	0.76	68.25	0.48	82.25	0.33
40.50	1.36	54.50	0.75	68.50	0.47	82.50	0.33
40.75	1.34	54.75	0.74	68.75	0.47	82.75	0.33
41.00	1.32	55.00	0.74	69.00	0.47	83.00	0.32
41.25	1.31	55.25	0.73	69.25	0.46	83.25	0.32
41.50	1.29	55.50	0.72	69.50	0.46	83.50	0.32
41.75	1.28	55.75	0.72	69.75	0.46	83.75	0.32
42.00	1.26	56.00	0.71	70.00	0.45	84.00	0.32
42.25	1.25	56.25	0.70	70.25	0.45	84.25	0.31
42.50	1.23	56.50	0.70	70.50	0.45	84.50	0.31
42.75	1.22	56.75	0.69	70.75	0.44	84.75	0.31
43.00	1.20	57.00	0.69	71.00	0.44	85.00	0.31
43.25	1.19	57.25	0.68	71.25	0.44	85.25	0.31
43.50	1.18	57.50	0.67	71.50	0.44	85.50	0.30
43.75	1.16	57.75	0.67	71.75	0.43	85.75	0.30
44.00	1.15	58.00	0.66	72.00	0.43	86.00	0.30
44.25	1.14	58.25	0.66	72.25	0.43	86.25	0.30
44.50	1.12	58.50	0.65	72.50	0.42	86.50	0.30
44.75	1.11	58.75	0.64	72.75	0.42	86.75	0.30
45.00	1.10	59.00	0.64	73.00	0.42	87.00	0.29
45.25	1.09	59.25	0.63	73.25	0.41	87.25	0.29
45.50	1.08	59.50	0.63	73.50	0.41	87.50	0.29
45.75	1.06	59.75	0.62	73.75	0.41	87.75	0.29
46.00	1.05	60.00	0.62	74.00	0.41	88.00	0.29
46.25	1.04	60.25	0.61	74.25	0.40	88.25	0.29
46.50	1.03	60.50	0.61	74.50	0.40	88.50	0.28
46.75	1.02	60.75	0.60	74.75	0.40	88.75	0.28
47.00	1.01	61.00	0.60	75.00	0.40	89.00	0.28
47.25	1.00	61.25	0.59	75.25	0.39	89.25	0.28
47.50	0.99	61.50	0.59	75.50	0.39	89.50	0.28
47.75	0.98	61.75	0.58	75.75	0.39	89.75	0.28
48.00	0.97	62.00	0.58	76.00	0.39	90.00	0.27
48.25	0.96	62.25	0.57	76.25	0.38	90.25	0.27
48.50	0.95	62.50	0.57	76.50	0.38	90.50	0.27
48.75	0.94	62.75	0.57	76.75	0.38	90.75	0.27
49.00	0.93	63.00	0.56	77.00	0.38	91.00	0.27
49.25	0.92	63.25	0.56	77.25	0.37	91.25	0.27
49.50	0.91	63.50	0.55	77.50	0.37	91.50	0.27
49.75	0.90	63.75	0.55	77.75	0.37	91.75	0.26
50.00	0.89	64.00	0.54	78.00	0.37	92.00	0.26
50.25	0.88	64.25	0.54	78.25	0.36	92.25	0.26
50.50	0.87	64.50	0.54	78.50	0.36	92.50	0.26
50.75	0.86	64.75	0.53	78.75	0.36	92.75	0.26
51.00	0.86	65.00	0.53	79.00	0.36	93.00	0.26
51.25	0.85	65.25	0.52	79.25	0.35	93.25	0.26
51.50	0.84	65.50	0.52	79.50	0.35	93.50	0.25
51.75	0.83	65.75	0.51	79.75	0.35	93.75	0.25
52.00	0.82	66.00	0.51	80.00	0.35	94.00	0.25
52.25	0.82	66.25	0.51	80.25	0.35	94.25	0.25
52.50	0.81	66.50	0.50	80.50	0.34	94.50	0.25
52.75	0.80	66.75	0.50	80.75	0.34	94.75	0.25
53.00	0.79	67.00	0.50	81.00	0.34	95.00	0.25
53.25	0.79	67.25	0.49	81.25	0.34	95.25	0.25
53.50	0.78	67.50	0.49	81.50	0.34	95.50	0.24
53.75	0.77	67.75	0.48	81.75	0.33	95.75	0.24
54.00	0.76	68.00	0.48	82.00	0.33	96.00	0.24

Table 3 – 40%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 50%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.06 24.7 Inches

BioInitiative ft. 167.00 2004.0 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	44521.97	10.25	26.49	20.25	6.79	30.25	3.04
0.50	11130.49	10.50	25.24	20.50	6.62	30.50	2.99
0.75	4946.89	10.75	24.08	20.75	6.46	30.75	2.94
1.00	2782.62	11.00	23.00	21.00	6.31	31.00	2.90
1.25	1780.88	11.25	21.99	21.25	6.16	31.25	2.85
1.50	1236.72	11.50	21.04	21.50	6.02	31.50	2.80
1.75	908.61	11.75	20.15	21.75	5.88	31.75	2.76
2.00	695.66	12.00	19.32	22.00	5.75	32.00	2.72
2.25	549.65	12.25	18.54	22.25	5.62	32.25	2.68
2.50	445.22	12.50	17.81	22.50	5.50	32.50	2.63
2.75	367.95	12.75	17.12	22.75	5.38	32.75	2.59
3.00	309.18	13.00	16.47	23.00	5.26	33.00	2.56
3.25	263.44	13.25	15.85	23.25	5.15	33.25	2.52
3.50	227.15	13.50	15.27	23.50	5.04	33.50	2.48
3.75	197.88	13.75	14.72	23.75	4.93	33.75	2.44
4.00	173.91	14.00	14.20	24.00	4.83	34.00	2.41
4.25	154.06	14.25	13.70	24.25	4.73	34.25	2.37
4.50	137.41	14.50	13.23	24.50	4.64	34.50	2.34
4.75	123.33	14.75	12.79	24.75	4.54	34.75	2.30
5.00	111.30	15.00	12.37	25.00	4.45	35.00	2.27
5.25	100.96	15.25	11.97	25.25	4.36	35.25	2.24
5.50	91.99	15.50	11.58	25.50	4.28	35.50	2.21
5.75	84.16	15.75	11.22	25.75	4.20	35.75	2.18
6.00	77.30	16.00	10.87	26.00	4.12	36.00	2.15
6.25	71.24	16.25	10.54	26.25	4.04	36.25	2.12
6.50	65.86	16.50	10.22	26.50	3.96	36.50	2.09
6.75	61.07	16.75	9.92	26.75	3.89	36.75	2.06
7.00	56.79	17.00	9.63	27.00	3.82	37.00	2.03
7.25	52.94	17.25	9.35	27.25	3.75	37.25	2.01
7.50	49.47	17.50	9.09	27.50	3.68	37.50	1.98
7.75	46.33	17.75	8.83	27.75	3.61	37.75	1.95
8.00	43.48	18.00	8.59	28.00	3.55	38.00	1.93
8.25	40.88	18.25	8.35	28.25	3.49	38.25	1.90
8.50	38.51	18.50	8.13	28.50	3.43	38.50	1.88
8.75	36.34	18.75	7.92	28.75	3.37	38.75	1.85
9.00	34.35	19.00	7.71	29.00	3.31	39.00	1.83
9.25	32.52	19.25	7.51	29.25	3.25	39.25	1.81
9.50	30.83	19.50	7.32	29.50	3.20	39.50	1.78
9.75	29.27	19.75	7.13	29.75	3.14	39.75	1.76
10.00	27.83	20.00	6.96	30.00	3.09	40.00	1.74

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 – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 50%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.06

24.74 Inches

BioInitiative ft. 167.00

2004.00 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	1.72	54.25	0.95	68.25	0.60	82.25	0.41
40.50	1.70	54.50	0.94	68.50	0.59	82.50	0.41
40.75	1.68	54.75	0.93	68.75	0.59	82.75	0.41
41.00	1.66	55.00	0.92	69.00	0.58	83.00	0.40
41.25	1.64	55.25	0.91	69.25	0.58	83.25	0.40
41.50	1.62	55.50	0.90	69.50	0.58	83.50	0.40
41.75	1.60	55.75	0.90	69.75	0.57	83.75	0.40
42.00	1.58	56.00	0.89	70.00	0.57	84.00	0.39
42.25	1.56	56.25	0.88	70.25	0.56	84.25	0.39
42.50	1.54	56.50	0.87	70.50	0.56	84.50	0.39
42.75	1.52	56.75	0.86	70.75	0.56	84.75	0.39
43.00	1.50	57.00	0.86	71.00	0.55	85.00	0.39
43.25	1.49	57.25	0.85	71.25	0.55	85.25	0.38
43.50	1.47	57.50	0.84	71.50	0.54	85.50	0.38
43.75	1.45	57.75	0.83	71.75	0.54	85.75	0.38
44.00	1.44	58.00	0.83	72.00	0.54	86.00	0.38
44.25	1.42	58.25	0.82	72.25	0.53	86.25	0.37
44.50	1.41	58.50	0.81	72.50	0.53	86.50	0.37
44.75	1.39	58.75	0.81	72.75	0.53	86.75	0.37
45.00	1.37	59.00	0.80	73.00	0.52	87.00	0.37
45.25	1.36	59.25	0.79	73.25	0.52	87.25	0.37
45.50	1.34	59.50	0.79	73.50	0.52	87.50	0.36
45.75	1.33	59.75	0.78	73.75	0.51	87.75	0.36
46.00	1.32	60.00	0.77	74.00	0.51	88.00	0.36
46.25	1.30	60.25	0.77	74.25	0.50	88.25	0.36
46.50	1.29	60.50	0.76	74.50	0.50	88.50	0.36
46.75	1.27	60.75	0.75	74.75	0.50	88.75	0.35
47.00	1.26	61.00	0.75	75.00	0.49	89.00	0.35
47.25	1.25	61.25	0.74	75.25	0.49	89.25	0.35
47.50	1.23	61.50	0.74	75.50	0.49	89.50	0.35
47.75	1.22	61.75	0.73	75.75	0.48	89.75	0.35
48.00	1.21	62.00	0.72	76.00	0.48	90.00	0.34
48.25	1.20	62.25	0.72	76.25	0.48	90.25	0.34
48.50	1.18	62.50	0.71	76.50	0.48	90.50	0.34
48.75	1.17	62.75	0.71	76.75	0.47	90.75	0.34
49.00	1.16	63.00	0.70	77.00	0.47	91.00	0.34
49.25	1.15	63.25	0.70	77.25	0.47	91.25	0.33
49.50	1.14	63.50	0.69	77.50	0.46	91.50	0.33
49.75	1.12	63.75	0.68	77.75	0.46	91.75	0.33
50.00	1.11	64.00	0.68	78.00	0.46	92.00	0.33
50.25	1.10	64.25	0.67	78.25	0.45	92.25	0.33
50.50	1.09	64.50	0.67	78.50	0.45	92.50	0.33
50.75	1.08	64.75	0.66	78.75	0.45	92.75	0.32
51.00	1.07	65.00	0.66	79.00	0.45	93.00	0.32
51.25	1.06	65.25	0.65	79.25	0.44	93.25	0.32
51.50	1.05	65.50	0.65	79.50	0.44	93.50	0.32
51.75	1.04	65.75	0.64	79.75	0.44	93.75	0.32
52.00	1.03	66.00	0.64	80.00	0.43	94.00	0.31
52.25	1.02	66.25	0.63	80.25	0.43	94.25	0.31
52.50	1.01	66.50	0.63	80.50	0.43	94.50	0.31
52.75	1.00	66.75	0.62	80.75	0.43	94.75	0.31
53.00	0.99	67.00	0.62	81.00	0.42	95.00	0.31
53.25	0.98	67.25	0.62	81.25	0.42	95.25	0.31
53.50	0.97	67.50	0.61	81.50	0.42	95.50	0.31
53.75	0.96	67.75	0.61	81.75	0.42	95.75	0.30
54.00	0.95	68.00	0.60	82.00	0.41	96.00	0.30

Table 3 – 50%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 60%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.26 27.1 Inches

BioInitiative ft. 183.00 2196.0 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	53426.36	10.25	31.78	20.25	8.14	30.25	3.65
0.50	13356.59	10.50	30.29	20.50	7.95	30.50	3.59
0.75	5936.26	10.75	28.89	20.75	7.76	30.75	3.53
1.00	3339.15	11.00	27.60	21.00	7.57	31.00	3.47
1.25	2137.05	11.25	26.38	21.25	7.39	31.25	3.42
1.50	1484.07	11.50	25.25	21.50	7.22	31.50	3.37
1.75	1090.33	11.75	24.19	21.75	7.06	31.75	3.31
2.00	834.79	12.00	23.19	22.00	6.90	32.00	3.26
2.25	659.58	12.25	22.25	22.25	6.74	32.25	3.21
2.50	534.26	12.50	21.37	22.50	6.60	32.50	3.16
2.75	441.54	12.75	20.54	22.75	6.45	32.75	3.11
3.00	371.02	13.00	19.76	23.00	6.31	33.00	3.07
3.25	316.13	13.25	19.02	23.25	6.18	33.25	3.02
3.50	272.58	13.50	18.32	23.50	6.05	33.50	2.98
3.75	237.45	13.75	17.66	23.75	5.92	33.75	2.93
4.00	208.70	14.00	17.04	24.00	5.80	34.00	2.89
4.25	184.87	14.25	16.44	24.25	5.68	34.25	2.85
4.50	164.90	14.50	15.88	24.50	5.56	34.50	2.81
4.75	148.00	14.75	15.35	24.75	5.45	34.75	2.77
5.00	133.57	15.00	14.84	25.00	5.34	35.00	2.73
5.25	121.15	15.25	14.36	25.25	5.24	35.25	2.69
5.50	110.39	15.50	13.90	25.50	5.14	35.50	2.65
5.75	101.00	15.75	13.46	25.75	5.04	35.75	2.61
6.00	92.75	16.00	13.04	26.00	4.94	36.00	2.58
6.25	85.48	16.25	12.65	26.25	4.85	36.25	2.54
6.50	79.03	16.50	12.27	26.50	4.75	36.50	2.51
6.75	73.29	16.75	11.90	26.75	4.67	36.75	2.47
7.00	68.15	17.00	11.55	27.00	4.58	37.00	2.44
7.25	63.53	17.25	11.22	27.25	4.50	37.25	2.41
7.50	59.36	17.50	10.90	27.50	4.42	37.50	2.37
7.75	55.59	17.75	10.60	27.75	4.34	37.75	2.34
8.00	52.17	18.00	10.31	28.00	4.26	38.00	2.31
8.25	49.06	18.25	10.03	28.25	4.18	38.25	2.28
8.50	46.22	18.50	9.76	28.50	4.11	38.50	2.25
8.75	43.61	18.75	9.50	28.75	4.04	38.75	2.22
9.00	41.22	19.00	9.25	29.00	3.97	39.00	2.20
9.25	39.03	19.25	9.01	29.25	3.90	39.25	2.17
9.50	37.00	19.50	8.78	29.50	3.84	39.50	2.14
9.75	35.13	19.75	8.56	29.75	3.77	39.75	2.11
10.00	33.39	20.00	8.35	30.00	3.71	40.00	2.09

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 – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 60%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.26

27.11 Inches

BioInitiative ft. 183.00

2196.00 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	2.06	54.25	1.13	68.25	0.72	82.25	0.49
40.50	2.04	54.50	1.12	68.50	0.71	82.50	0.49
40.75	2.01	54.75	1.11	68.75	0.71	82.75	0.49
41.00	1.99	55.00	1.10	69.00	0.70	83.00	0.48
41.25	1.96	55.25	1.09	69.25	0.70	83.25	0.48
41.50	1.94	55.50	1.08	69.50	0.69	83.50	0.48
41.75	1.92	55.75	1.07	69.75	0.69	83.75	0.48
42.00	1.89	56.00	1.06	70.00	0.68	84.00	0.47
42.25	1.87	56.25	1.06	70.25	0.68	84.25	0.47
42.50	1.85	56.50	1.05	70.50	0.67	84.50	0.47
42.75	1.83	56.75	1.04	70.75	0.67	84.75	0.46
43.00	1.81	57.00	1.03	71.00	0.66	85.00	0.46
43.25	1.79	57.25	1.02	71.25	0.66	85.25	0.46
43.50	1.76	57.50	1.01	71.50	0.65	85.50	0.46
43.75	1.74	57.75	1.00	71.75	0.65	85.75	0.45
44.00	1.72	58.00	0.99	72.00	0.64	86.00	0.45
44.25	1.71	58.25	0.98	72.25	0.64	86.25	0.45
44.50	1.69	58.50	0.98	72.50	0.64	86.50	0.45
44.75	1.67	58.75	0.97	72.75	0.63	86.75	0.44
45.00	1.65	59.00	0.96	73.00	0.63	87.00	0.44
45.25	1.63	59.25	0.95	73.25	0.62	87.25	0.44
45.50	1.61	59.50	0.94	73.50	0.62	87.50	0.44
45.75	1.60	59.75	0.94	73.75	0.61	87.75	0.43
46.00	1.58	60.00	0.93	74.00	0.61	88.00	0.43
46.25	1.56	60.25	0.92	74.25	0.61	88.25	0.43
46.50	1.54	60.50	0.91	74.50	0.60	88.50	0.43
46.75	1.53	60.75	0.90	74.75	0.60	88.75	0.42
47.00	1.51	61.00	0.90	75.00	0.59	89.00	0.42
47.25	1.50	61.25	0.89	75.25	0.59	89.25	0.42
47.50	1.48	61.50	0.88	75.50	0.59	89.50	0.42
47.75	1.46	61.75	0.88	75.75	0.58	89.75	0.41
48.00	1.45	62.00	0.87	76.00	0.58	90.00	0.41
48.25	1.43	62.25	0.86	76.25	0.57	90.25	0.41
48.50	1.42	62.50	0.85	76.50	0.57	90.50	0.41
48.75	1.41	62.75	0.85	76.75	0.57	90.75	0.41
49.00	1.39	63.00	0.84	77.00	0.56	91.00	0.40
49.25	1.38	63.25	0.83	77.25	0.56	91.25	0.40
49.50	1.36	63.50	0.83	77.50	0.56	91.50	0.40
49.75	1.35	63.75	0.82	77.75	0.55	91.75	0.40
50.00	1.34	64.00	0.82	78.00	0.55	92.00	0.39
50.25	1.32	64.25	0.81	78.25	0.55	92.25	0.39
50.50	1.31	64.50	0.80	78.50	0.54	92.50	0.39
50.75	1.30	64.75	0.80	78.75	0.54	92.75	0.39
51.00	1.28	65.00	0.79	79.00	0.54	93.00	0.39
51.25	1.27	65.25	0.78	79.25	0.53	93.25	0.38
51.50	1.26	65.50	0.78	79.50	0.53	93.50	0.38
51.75	1.25	65.75	0.77	79.75	0.53	93.75	0.38
52.00	1.23	66.00	0.77	80.00	0.52	94.00	0.38
52.25	1.22	66.25	0.76	80.25	0.52	94.25	0.38
52.50	1.21	66.50	0.76	80.50	0.52	94.50	0.37
52.75	1.20	66.75	0.75	80.75	0.51	94.75	0.37
53.00	1.19	67.00	0.74	81.00	0.51	95.00	0.37
53.25	1.18	67.25	0.74	81.25	0.51	95.25	0.37
53.50	1.17	67.50	0.73	81.50	0.50	95.50	0.37
53.75	1.16	67.75	0.73	81.75	0.50	95.75	0.36
54.00	1.15	68.00	0.72	82.00	0.50	96.00	0.36

Table 3 – 60%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

**Meters** 1 Electric Meter

Time Avg: 70%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.44 29.3 Inches

BioInitiative ft. 197.00 2364.0 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	62330.76	10.25	37.08	20.25	9.50	30.25	4.26
0.50	15582.69	10.50	35.33	20.50	9.27	30.50	4.19
0.75	6925.64	10.75	33.71	20.75	9.05	30.75	4.12
1.00	3895.67	11.00	32.20	21.00	8.83	31.00	4.05
1.25	2493.23	11.25	30.78	21.25	8.63	31.25	3.99
1.50	1731.41	11.50	29.46	21.50	8.43	31.50	3.93
1.75	1272.06	11.75	28.22	21.75	8.24	31.75	3.86
2.00	973.92	12.00	27.05	22.00	8.05	32.00	3.80
2.25	769.52	12.25	25.96	22.25	7.87	32.25	3.75
2.50	623.31	12.50	24.93	22.50	7.70	32.50	3.69
2.75	515.13	12.75	23.96	22.75	7.53	32.75	3.63
3.00	432.85	13.00	23.05	23.00	7.36	33.00	3.58
3.25	368.82	13.25	22.19	23.25	7.21	33.25	3.52
3.50	318.01	13.50	21.38	23.50	7.05	33.50	3.47
3.75	277.03	13.75	20.61	23.75	6.91	33.75	3.42
4.00	243.48	14.00	19.88	24.00	6.76	34.00	3.37
4.25	215.68	14.25	19.18	24.25	6.62	34.25	3.32
4.50	192.38	14.50	18.53	24.50	6.49	34.50	3.27
4.75	172.66	14.75	17.91	24.75	6.36	34.75	3.23
5.00	155.83	15.00	17.31	25.00	6.23	35.00	3.18
5.25	141.34	15.25	16.75	25.25	6.11	35.25	3.14
5.50	128.78	15.50	16.22	25.50	5.99	35.50	3.09
5.75	117.83	15.75	15.70	25.75	5.88	35.75	3.05
6.00	108.21	16.00	15.22	26.00	5.76	36.00	3.01
6.25	99.73	16.25	14.75	26.25	5.65	36.25	2.96
6.50	92.21	16.50	14.31	26.50	5.55	36.50	2.92
6.75	85.50	16.75	13.89	26.75	5.44	36.75	2.88
7.00	79.50	17.00	13.48	27.00	5.34	37.00	2.85
7.25	74.12	17.25	13.09	27.25	5.25	37.25	2.81
7.50	69.26	17.50	12.72	27.50	5.15	37.50	2.77
7.75	64.86	17.75	12.36	27.75	5.06	37.75	2.73
8.00	60.87	18.00	12.02	28.00	4.97	38.00	2.70
8.25	57.24	18.25	11.70	28.25	4.88	38.25	2.66
8.50	53.92	18.50	11.38	28.50	4.80	38.50	2.63
8.75	50.88	18.75	11.08	28.75	4.71	38.75	2.59
9.00	48.09	19.00	10.79	29.00	4.63	39.00	2.56
9.25	45.53	19.25	10.51	29.25	4.55	39.25	2.53
9.50	43.17	19.50	10.25	29.50	4.48	39.50	2.50
9.75	40.98	19.75	9.99	29.75	4.40	39.75	2.47
10.00	38.96	20.00	9.74	30.00	4.33	40.00	2.43

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 – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 70%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.44

29.28 Inches

BioInitiative ft. 197.00

2364.00 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	2.40	54.25	1.32	68.25	0.84	82.25	0.58
40.50	2.38	54.50	1.31	68.50	0.83	82.50	0.57
40.75	2.35	54.75	1.30	68.75	0.82	82.75	0.57
41.00	2.32	55.00	1.29	69.00	0.82	83.00	0.57
41.25	2.29	55.25	1.28	69.25	0.81	83.25	0.56
41.50	2.26	55.50	1.26	69.50	0.81	83.50	0.56
41.75	2.23	55.75	1.25	69.75	0.80	83.75	0.56
42.00	2.21	56.00	1.24	70.00	0.80	84.00	0.55
42.25	2.18	56.25	1.23	70.25	0.79	84.25	0.55
42.50	2.16	56.50	1.22	70.50	0.78	84.50	0.55
42.75	2.13	56.75	1.21	70.75	0.78	84.75	0.54
43.00	2.11	57.00	1.20	71.00	0.77	85.00	0.54
43.25	2.08	57.25	1.19	71.25	0.77	85.25	0.54
43.50	2.06	57.50	1.18	71.50	0.76	85.50	0.53
43.75	2.04	57.75	1.17	71.75	0.76	85.75	0.53
44.00	2.01	58.00	1.16	72.00	0.75	86.00	0.53
44.25	1.99	58.25	1.15	72.25	0.75	86.25	0.52
44.50	1.97	58.50	1.14	72.50	0.74	86.50	0.52
44.75	1.95	58.75	1.13	72.75	0.74	86.75	0.52
45.00	1.92	59.00	1.12	73.00	0.73	87.00	0.51
45.25	1.90	59.25	1.11	73.25	0.73	87.25	0.51
45.50	1.88	59.50	1.10	73.50	0.72	87.50	0.51
45.75	1.86	59.75	1.09	73.75	0.72	87.75	0.51
46.00	1.84	60.00	1.08	74.00	0.71	88.00	0.50
46.25	1.82	60.25	1.07	74.25	0.71	88.25	0.50
46.50	1.80	60.50	1.06	74.50	0.70	88.50	0.50
46.75	1.78	60.75	1.06	74.75	0.70	88.75	0.49
47.00	1.76	61.00	1.05	75.00	0.69	89.00	0.49
47.25	1.74	61.25	1.04	75.25	0.69	89.25	0.49
47.50	1.73	61.50	1.03	75.50	0.68	89.50	0.49
47.75	1.71	61.75	1.02	75.75	0.68	89.75	0.48
48.00	1.69	62.00	1.01	76.00	0.67	90.00	0.48
48.25	1.67	62.25	1.01	76.25	0.67	90.25	0.48
48.50	1.66	62.50	1.00	76.50	0.67	90.50	0.48
48.75	1.64	62.75	0.99	76.75	0.66	90.75	0.47
49.00	1.62	63.00	0.98	77.00	0.66	91.00	0.47
49.25	1.61	63.25	0.97	77.25	0.65	91.25	0.47
49.50	1.59	63.50	0.97	77.50	0.65	91.50	0.47
49.75	1.57	63.75	0.96	77.75	0.64	91.75	0.46
50.00	1.56	64.00	0.95	78.00	0.64	92.00	0.46
50.25	1.54	64.25	0.94	78.25	0.64	92.25	0.46
50.50	1.53	64.50	0.94	78.50	0.63	92.50	0.46
50.75	1.51	64.75	0.93	78.75	0.63	92.75	0.45
51.00	1.50	65.00	0.92	79.00	0.62	93.00	0.45
51.25	1.48	65.25	0.92	79.25	0.62	93.25	0.45
51.50	1.47	65.50	0.91	79.50	0.62	93.50	0.45
51.75	1.45	65.75	0.90	79.75	0.61	93.75	0.44
52.00	1.44	66.00	0.89	80.00	0.61	94.00	0.44
52.25	1.43	66.25	0.89	80.25	0.60	94.25	0.44
52.50	1.41	66.50	0.88	80.50	0.60	94.50	0.44
52.75	1.40	66.75	0.87	80.75	0.60	94.75	0.43
53.00	1.39	67.00	0.87	81.00	0.59	95.00	0.43
53.25	1.37	67.25	0.86	81.25	0.59	95.25	0.43
53.50	1.36	67.50	0.86	81.50	0.59	95.50	0.43
53.75	1.35	67.75	0.85	81.75	0.58	95.75	0.42
54.00	1.34	68.00	0.84	82.00	0.58	96.00	0.42

Table 3 – 70%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 80%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.61 31.3 Inches

BioInitiative ft. 210.50 2526.0 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	71235.15	10.25	42.38	20.25	10.86	30.25	4.87
0.50	17808.79	10.50	40.38	20.50	10.59	30.50	4.79
0.75	7915.02	10.75	38.53	20.75	10.34	30.75	4.71
1.00	4452.20	11.00	36.80	21.00	10.10	31.00	4.63
1.25	2849.41	11.25	35.18	21.25	9.86	31.25	4.56
1.50	1978.75	11.50	33.67	21.50	9.63	31.50	4.49
1.75	1453.78	11.75	32.25	21.75	9.41	31.75	4.42
2.00	1113.05	12.00	30.92	22.00	9.20	32.00	4.35
2.25	879.45	12.25	29.67	22.25	8.99	32.25	4.28
2.50	712.35	12.50	28.49	22.50	8.79	32.50	4.22
2.75	588.72	12.75	27.39	22.75	8.60	32.75	4.15
3.00	494.69	13.00	26.34	23.00	8.42	33.00	4.09
3.25	421.51	13.25	25.36	23.25	8.24	33.25	4.03
3.50	363.44	13.50	24.43	23.50	8.06	33.50	3.97
3.75	316.60	13.75	23.55	23.75	7.89	33.75	3.91
4.00	278.26	14.00	22.72	24.00	7.73	34.00	3.85
4.25	246.49	14.25	21.93	24.25	7.57	34.25	3.80
4.50	219.86	14.50	21.18	24.50	7.42	34.50	3.74
4.75	197.33	14.75	20.46	24.75	7.27	34.75	3.69
5.00	178.09	15.00	19.79	25.00	7.12	35.00	3.63
5.25	161.53	15.25	19.14	25.25	6.98	35.25	3.58
5.50	147.18	15.50	18.53	25.50	6.85	35.50	3.53
5.75	134.66	15.75	17.95	25.75	6.71	35.75	3.48
6.00	123.67	16.00	17.39	26.00	6.59	36.00	3.44
6.25	113.98	16.25	16.86	26.25	6.46	36.25	3.39
6.50	105.38	16.50	16.35	26.50	6.34	36.50	3.34
6.75	97.72	16.75	15.87	26.75	6.22	36.75	3.30
7.00	90.86	17.00	15.41	27.00	6.11	37.00	3.25
7.25	84.70	17.25	14.96	27.25	6.00	37.25	3.21
7.50	79.15	17.50	14.54	27.50	5.89	37.50	3.17
7.75	74.13	17.75	14.13	27.75	5.78	37.75	3.12
8.00	69.57	18.00	13.74	28.00	5.68	38.00	3.08
8.25	65.41	18.25	13.37	28.25	5.58	38.25	3.04
8.50	61.62	18.50	13.01	28.50	5.48	38.50	3.00
8.75	58.15	18.75	12.66	28.75	5.39	38.75	2.97
9.00	54.97	19.00	12.33	29.00	5.29	39.00	2.93
9.25	52.03	19.25	12.01	29.25	5.20	39.25	2.89
9.50	49.33	19.50	11.71	29.50	5.12	39.50	2.85
9.75	46.83	19.75	11.41	29.75	5.03	39.75	2.82
10.00	44.52	20.00	11.13	30.00	4.95	40.00	2.78

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 – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 80%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.61

31.30 Inches

BioInitiative ft. 210.50

2526.00 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	2.75	54.25	1.51	68.25	0.96	82.25	0.66
40.50	2.71	54.50	1.50	68.50	0.95	82.50	0.65
40.75	2.68	54.75	1.49	68.75	0.94	82.75	0.65
41.00	2.65	55.00	1.47	69.00	0.94	83.00	0.65
41.25	2.62	55.25	1.46	69.25	0.93	83.25	0.64
41.50	2.59	55.50	1.45	69.50	0.92	83.50	0.64
41.75	2.55	55.75	1.43	69.75	0.92	83.75	0.63
42.00	2.52	56.00	1.42	70.00	0.91	84.00	0.63
42.25	2.49	56.25	1.41	70.25	0.90	84.25	0.63
42.50	2.46	56.50	1.39	70.50	0.90	84.50	0.62
42.75	2.44	56.75	1.38	70.75	0.89	84.75	0.62
43.00	2.41	57.00	1.37	71.00	0.88	85.00	0.62
43.25	2.38	57.25	1.36	71.25	0.88	85.25	0.61
43.50	2.35	57.50	1.35	71.50	0.87	85.50	0.61
43.75	2.33	57.75	1.33	71.75	0.86	85.75	0.61
44.00	2.30	58.00	1.32	72.00	0.86	86.00	0.60
44.25	2.27	58.25	1.31	72.25	0.85	86.25	0.60
44.50	2.25	58.50	1.30	72.50	0.85	86.50	0.60
44.75	2.22	58.75	1.29	72.75	0.84	86.75	0.59
45.00	2.20	59.00	1.28	73.00	0.84	87.00	0.59
45.25	2.17	59.25	1.27	73.25	0.83	87.25	0.58
45.50	2.15	59.50	1.26	73.50	0.82	87.50	0.58
45.75	2.13	59.75	1.25	73.75	0.82	87.75	0.58
46.00	2.10	60.00	1.24	74.00	0.81	88.00	0.57
46.25	2.08	60.25	1.23	74.25	0.81	88.25	0.57
46.50	2.06	60.50	1.22	74.50	0.80	88.50	0.57
46.75	2.04	60.75	1.21	74.75	0.80	88.75	0.57
47.00	2.02	61.00	1.20	75.00	0.79	89.00	0.56
47.25	1.99	61.25	1.19	75.25	0.79	89.25	0.56
47.50	1.97	61.50	1.18	75.50	0.78	89.50	0.56
47.75	1.95	61.75	1.17	75.75	0.78	89.75	0.55
48.00	1.93	62.00	1.16	76.00	0.77	90.00	0.55
48.25	1.91	62.25	1.15	76.25	0.77	90.25	0.55
48.50	1.89	62.50	1.14	76.50	0.76	90.50	0.54
48.75	1.87	62.75	1.13	76.75	0.76	90.75	0.54
49.00	1.85	63.00	1.12	77.00	0.75	91.00	0.54
49.25	1.84	63.25	1.11	77.25	0.75	91.25	0.53
49.50	1.82	63.50	1.10	77.50	0.74	91.50	0.53
49.75	1.80	63.75	1.10	77.75	0.74	91.75	0.53
50.00	1.78	64.00	1.09	78.00	0.73	92.00	0.53
50.25	1.76	64.25	1.08	78.25	0.73	92.25	0.52
50.50	1.75	64.50	1.07	78.50	0.72	92.50	0.52
50.75	1.73	64.75	1.06	78.75	0.72	92.75	0.52
51.00	1.71	65.00	1.05	79.00	0.71	93.00	0.51
51.25	1.70	65.25	1.05	79.25	0.71	93.25	0.51
51.50	1.68	65.50	1.04	79.50	0.70	93.50	0.51
51.75	1.66	65.75	1.03	79.75	0.70	93.75	0.51
52.00	1.65	66.00	1.02	80.00	0.70	94.00	0.50
52.25	1.63	66.25	1.01	80.25	0.69	94.25	0.50
52.50	1.62	66.50	1.01	80.50	0.69	94.50	0.50
52.75	1.60	66.75	1.00	80.75	0.68	94.75	0.50
53.00	1.58	67.00	0.99	81.00	0.68	95.00	0.49
53.25	1.57	67.25	0.98	81.25	0.67	95.25	0.49
53.50	1.56	67.50	0.98	81.50	0.67	95.50	0.49
53.75	1.54	67.75	0.97	81.75	0.67	95.75	0.49
54.00	1.53	68.00	0.96	82.00	0.66	96.00	0.48

Table 3 – 80%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 90%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.77 33.2 Inches

BioInitiative ft. 224.00 2688.0 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	80139.54	10.25	47.67	20.25	12.21	30.25	5.47
0.50	20034.89	10.50	45.43	20.50	11.92	30.50	5.38
0.75	8904.39	10.75	43.34	20.75	11.63	30.75	5.30
1.00	5008.72	11.00	41.39	21.00	11.36	31.00	5.21
1.25	3205.58	11.25	39.58	21.25	11.09	31.25	5.13
1.50	2226.10	11.50	37.87	21.50	10.84	31.50	5.05
1.75	1635.50	11.75	36.28	21.75	10.59	31.75	4.97
2.00	1252.18	12.00	34.78	22.00	10.35	32.00	4.89
2.25	989.38	12.25	33.38	22.25	10.12	32.25	4.82
2.50	801.40	12.50	32.06	22.50	9.89	32.50	4.74
2.75	662.31	12.75	30.81	22.75	9.68	32.75	4.67
3.00	556.52	13.00	29.64	23.00	9.47	33.00	4.60
3.25	474.20	13.25	28.53	23.25	9.27	33.25	4.53
3.50	408.88	13.50	27.48	23.50	9.07	33.50	4.46
3.75	356.18	13.75	26.49	23.75	8.88	33.75	4.40
4.00	313.05	14.00	25.55	24.00	8.70	34.00	4.33
4.25	277.30	14.25	24.67	24.25	8.52	34.25	4.27
4.50	247.34	14.50	23.82	24.50	8.34	34.50	4.21
4.75	221.99	14.75	23.02	24.75	8.18	34.75	4.15
5.00	200.35	15.00	22.26	25.00	8.01	35.00	4.09
5.25	181.72	15.25	21.54	25.25	7.86	35.25	4.03
5.50	165.58	15.50	20.85	25.50	7.70	35.50	3.97
5.75	151.49	15.75	20.19	25.75	7.55	35.75	3.92
6.00	139.13	16.00	19.57	26.00	7.41	36.00	3.86
6.25	128.22	16.25	18.97	26.25	7.27	36.25	3.81
6.50	118.55	16.50	18.40	26.50	7.13	36.50	3.76
6.75	109.93	16.75	17.85	26.75	7.00	36.75	3.71
7.00	102.22	17.00	17.33	27.00	6.87	37.00	3.66
7.25	95.29	17.25	16.83	27.25	6.75	37.25	3.61
7.50	89.04	17.50	16.36	27.50	6.62	37.50	3.56
7.75	83.39	17.75	15.90	27.75	6.50	37.75	3.51
8.00	78.26	18.00	15.46	28.00	6.39	38.00	3.47
8.25	73.59	18.25	15.04	28.25	6.28	38.25	3.42
8.50	69.32	18.50	14.63	28.50	6.17	38.50	3.38
8.75	65.42	18.75	14.25	28.75	6.06	38.75	3.34
9.00	61.84	19.00	13.87	29.00	5.96	39.00	3.29
9.25	58.54	19.25	13.52	29.25	5.85	39.25	3.25
9.50	55.50	19.50	13.17	29.50	5.76	39.50	3.21
9.75	52.69	19.75	12.84	29.75	5.66	39.75	3.17
10.00	50.09	20.00	12.52	30.00	5.57	40.00	3.13

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 – 1000% reflections)

Meters 1 Electric Meter

Time Avg: 90%

% Reflection 1000%

Distance where limits are exceeded

FCC ft. 2.77

33.20 Inches

BioInitiative ft. 224.00

2688.00 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	3.09	54.25	1.70	68.25	1.08	82.25	0.74
40.50	3.05	54.50	1.69	68.50	1.07	82.50	0.74
40.75	3.02	54.75	1.67	68.75	1.06	82.75	0.73
41.00	2.98	55.00	1.66	69.00	1.05	83.00	0.73
41.25	2.94	55.25	1.64	69.25	1.04	83.25	0.72
41.50	2.91	55.50	1.63	69.50	1.04	83.50	0.72
41.75	2.87	55.75	1.61	69.75	1.03	83.75	0.71
42.00	2.84	56.00	1.60	70.00	1.02	84.00	0.71
42.25	2.81	56.25	1.58	70.25	1.01	84.25	0.71
42.50	2.77	56.50	1.57	70.50	1.01	84.50	0.70
42.75	2.74	56.75	1.56	70.75	1.00	84.75	0.70
43.00	2.71	57.00	1.54	71.00	0.99	85.00	0.69
43.25	2.68	57.25	1.53	71.25	0.99	85.25	0.69
43.50	2.65	57.50	1.51	71.50	0.98	85.50	0.69
43.75	2.62	57.75	1.50	71.75	0.97	85.75	0.68
44.00	2.59	58.00	1.49	72.00	0.97	86.00	0.68
44.25	2.56	58.25	1.48	72.25	0.96	86.25	0.67
44.50	2.53	58.50	1.46	72.50	0.95	86.50	0.67
44.75	2.50	58.75	1.45	72.75	0.95	86.75	0.67
45.00	2.47	59.00	1.44	73.00	0.94	87.00	0.66
45.25	2.45	59.25	1.43	73.25	0.93	87.25	0.66
45.50	2.42	59.50	1.41	73.50	0.93	87.50	0.65
45.75	2.39	59.75	1.40	73.75	0.92	87.75	0.65
46.00	2.37	60.00	1.39	74.00	0.91	88.00	0.65
46.25	2.34	60.25	1.38	74.25	0.91	88.25	0.64
46.50	2.32	60.50	1.37	74.50	0.90	88.50	0.64
46.75	2.29	60.75	1.36	74.75	0.90	88.75	0.64
47.00	2.27	61.00	1.35	75.00	0.89	89.00	0.63
47.25	2.24	61.25	1.34	75.25	0.88	89.25	0.63
47.50	2.22	61.50	1.32	75.50	0.88	89.50	0.63
47.75	2.20	61.75	1.31	75.75	0.87	89.75	0.62
48.00	2.17	62.00	1.30	76.00	0.87	90.00	0.62
48.25	2.15	62.25	1.29	76.25	0.86	90.25	0.61
48.50	2.13	62.50	1.28	76.50	0.86	90.50	0.61
48.75	2.11	62.75	1.27	76.75	0.85	90.75	0.61
49.00	2.09	63.00	1.26	77.00	0.84	91.00	0.60
49.25	2.06	63.25	1.25	77.25	0.84	91.25	0.60
49.50	2.04	63.50	1.24	77.50	0.83	91.50	0.60
49.75	2.02	63.75	1.23	77.75	0.83	91.75	0.59
50.00	2.00	64.00	1.22	78.00	0.82	92.00	0.59
50.25	1.98	64.25	1.21	78.25	0.82	92.25	0.59
50.50	1.96	64.50	1.20	78.50	0.81	92.50	0.59
50.75	1.94	64.75	1.19	78.75	0.81	92.75	0.58
51.00	1.93	65.00	1.19	79.00	0.80	93.00	0.58
51.25	1.91	65.25	1.18	79.25	0.80	93.25	0.58
51.50	1.89	65.50	1.17	79.50	0.79	93.50	0.57
51.75	1.87	65.75	1.16	79.75	0.79	93.75	0.57
52.00	1.85	66.00	1.15	80.00	0.78	94.00	0.57
52.25	1.83	66.25	1.14	80.25	0.78	94.25	0.56
52.50	1.82	66.50	1.13	80.50	0.77	94.50	0.56
52.75	1.80	66.75	1.12	80.75	0.77	94.75	0.56
53.00	1.78	67.00	1.12	81.00	0.76	95.00	0.55
53.25	1.77	67.25	1.11	81.25	0.76	95.25	0.55
53.50	1.75	67.50	1.10	81.50	0.75	95.50	0.55
53.75	1.73	67.75	1.09	81.75	0.75	95.75	0.55
54.00	1.72	68.00	1.08	82.00	0.74	96.00	0.54

Table 3 – 90%