

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 100% reflections)

Meters 1 Electric Meter

Time Avg: 1%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.05

0.6 Inches

BioInitiative ft. 4.28

51.4 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	29.44	10.25	0.02	20.25	0.00	30.25	0.00
0.50	7.36	10.50	0.02	20.50	0.00	30.50	0.00
0.75	3.27	10.75	0.02	20.75	0.00	30.75	0.00
1.00	1.84	11.00	0.02	21.00	0.00	31.00	0.00
1.25	1.18	11.25	0.01	21.25	0.00	31.25	0.00
1.50	0.82	11.50	0.01	21.50	0.00	31.50	0.00
1.75	0.60	11.75	0.01	21.75	0.00	31.75	0.00
2.00	0.46	12.00	0.01	22.00	0.00	32.00	0.00
2.25	0.36	12.25	0.01	22.25	0.00	32.25	0.00
2.50	0.29	12.50	0.01	22.50	0.00	32.50	0.00
2.75	0.24	12.75	0.01	22.75	0.00	32.75	0.00
3.00	0.20	13.00	0.01	23.00	0.00	33.00	0.00
3.25	0.17	13.25	0.01	23.25	0.00	33.25	0.00
3.50	0.15	13.50	0.01	23.50	0.00	33.50	0.00
3.75	0.13	13.75	0.01	23.75	0.00	33.75	0.00
4.00	0.11	14.00	0.01	24.00	0.00	34.00	0.00
4.25	0.10	14.25	0.01	24.25	0.00	34.25	0.00
4.50	0.09	14.50	0.01	24.50	0.00	34.50	0.00
4.75	0.08	14.75	0.01	24.75	0.00	34.75	0.00
5.00	0.07	15.00	0.01	25.00	0.00	35.00	0.00
5.25	0.07	15.25	0.01	25.25	0.00	35.25	0.00
5.50	0.06	15.50	0.01	25.50	0.00	35.50	0.00
5.75	0.06	15.75	0.01	25.75	0.00	35.75	0.00
6.00	0.05	16.00	0.01	26.00	0.00	36.00	0.00
6.25	0.05	16.25	0.01	26.25	0.00	36.25	0.00
6.50	0.04	16.50	0.01	26.50	0.00	36.50	0.00
6.75	0.04	16.75	0.01	26.75	0.00	36.75	0.00
7.00	0.04	17.00	0.01	27.00	0.00	37.00	0.00
7.25	0.04	17.25	0.01	27.25	0.00	37.25	0.00
7.50	0.03	17.50	0.01	27.50	0.00	37.50	0.00
7.75	0.03	17.75	0.01	27.75	0.00	37.75	0.00
8.00	0.03	18.00	0.01	28.00	0.00	38.00	0.00
8.25	0.03	18.25	0.01	28.25	0.00	38.25	0.00
8.50	0.03	18.50	0.01	28.50	0.00	38.50	0.00
8.75	0.02	18.75	0.01	28.75	0.00	38.75	0.00
9.00	0.02	19.00	0.01	29.00	0.00	39.00	0.00
9.25	0.02	19.25	0.00	29.25	0.00	39.25	0.00
9.50	0.02	19.50	0.00	29.50	0.00	39.50	0.00
9.75	0.02	19.75	0.00	29.75	0.00	39.75	0.00
10.00	0.02	20.00	0.00	30.00	0.00	40.00	0.00

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 – 100% reflections)

Meters 1 Electric Meter

Time Avg: 1%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.05

0.64 Inches

BioInitiative ft. 4.28

51.36 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	0.00	54.25	0.00	68.25	0.00	82.25	0.00
40.50	0.00	54.50	0.00	68.50	0.00	82.50	0.00
40.75	0.00	54.75	0.00	68.75	0.00	82.75	0.00
41.00	0.00	55.00	0.00	69.00	0.00	83.00	0.00
41.25	0.00	55.25	0.00	69.25	0.00	83.25	0.00
41.50	0.00	55.50	0.00	69.50	0.00	83.50	0.00
41.75	0.00	55.75	0.00	69.75	0.00	83.75	0.00
42.00	0.00	56.00	0.00	70.00	0.00	84.00	0.00
42.25	0.00	56.25	0.00	70.25	0.00	84.25	0.00
42.50	0.00	56.50	0.00	70.50	0.00	84.50	0.00
42.75	0.00	56.75	0.00	70.75	0.00	84.75	0.00
43.00	0.00	57.00	0.00	71.00	0.00	85.00	0.00
43.25	0.00	57.25	0.00	71.25	0.00	85.25	0.00
43.50	0.00	57.50	0.00	71.50	0.00	85.50	0.00
43.75	0.00	57.75	0.00	71.75	0.00	85.75	0.00
44.00	0.00	58.00	0.00	72.00	0.00	86.00	0.00
44.25	0.00	58.25	0.00	72.25	0.00	86.25	0.00
44.50	0.00	58.50	0.00	72.50	0.00	86.50	0.00
44.75	0.00	58.75	0.00	72.75	0.00	86.75	0.00
45.00	0.00	59.00	0.00	73.00	0.00	87.00	0.00
45.25	0.00	59.25	0.00	73.25	0.00	87.25	0.00
45.50	0.00	59.50	0.00	73.50	0.00	87.50	0.00
45.75	0.00	59.75	0.00	73.75	0.00	87.75	0.00
46.00	0.00	60.00	0.00	74.00	0.00	88.00	0.00
46.25	0.00	60.25	0.00	74.25	0.00	88.25	0.00
46.50	0.00	60.50	0.00	74.50	0.00	88.50	0.00
46.75	0.00	60.75	0.00	74.75	0.00	88.75	0.00
47.00	0.00	61.00	0.00	75.00	0.00	89.00	0.00
47.25	0.00	61.25	0.00	75.25	0.00	89.25	0.00
47.50	0.00	61.50	0.00	75.50	0.00	89.50	0.00
47.75	0.00	61.75	0.00	75.75	0.00	89.75	0.00
48.00	0.00	62.00	0.00	76.00	0.00	90.00	0.00
48.25	0.00	62.25	0.00	76.25	0.00	90.25	0.00
48.50	0.00	62.50	0.00	76.50	0.00	90.50	0.00
48.75	0.00	62.75	0.00	76.75	0.00	90.75	0.00
49.00	0.00	63.00	0.00	77.00	0.00	91.00	0.00
49.25	0.00	63.25	0.00	77.25	0.00	91.25	0.00
49.50	0.00	63.50	0.00	77.50	0.00	91.50	0.00
49.75	0.00	63.75	0.00	77.75	0.00	91.75	0.00
50.00	0.00	64.00	0.00	78.00	0.00	92.00	0.00
50.25	0.00	64.25	0.00	78.25	0.00	92.25	0.00
50.50	0.00	64.50	0.00	78.50	0.00	92.50	0.00
50.75	0.00	64.75	0.00	78.75	0.00	92.75	0.00
51.00	0.00	65.00	0.00	79.00	0.00	93.00	0.00
51.25	0.00	65.25	0.00	79.25	0.00	93.25	0.00
51.50	0.00	65.50	0.00	79.50	0.00	93.50	0.00
51.75	0.00	65.75	0.00	79.75	0.00	93.75	0.00
52.00	0.00	66.00	0.00	80.00	0.00	94.00	0.00
52.25	0.00	66.25	0.00	80.25	0.00	94.25	0.00
52.50	0.00	66.50	0.00	80.50	0.00	94.50	0.00
52.75	0.00	66.75	0.00	80.75	0.00	94.75	0.00
53.00	0.00	67.00	0.00	81.00	0.00	95.00	0.00
53.25	0.00	67.25	0.00	81.25	0.00	95.25	0.00
53.50	0.00	67.50	0.00	81.50	0.00	95.50	0.00
53.75	0.00	67.75	0.00	81.75	0.00	95.75	0.00
54.00	0.00	68.00	0.00	82.00	0.00	96.00	0.00

Table 2 – 1%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 100% reflections)

Meters 1 Electric Meter

Time Avg: 10%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.17 2.0 Inches

BioInitiative ft. 13.55 162.6 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	294.36	10.25	0.18	20.25	0.04	30.25	0.02
0.50	73.59	10.50	0.17	20.50	0.04	30.50	0.02
0.75	32.71	10.75	0.16	20.75	0.04	30.75	0.02
1.00	18.40	11.00	0.15	21.00	0.04	31.00	0.02
1.25	11.77	11.25	0.15	21.25	0.04	31.25	0.02
1.50	8.18	11.50	0.14	21.50	0.04	31.50	0.02
1.75	6.01	11.75	0.13	21.75	0.04	31.75	0.02
2.00	4.60	12.00	0.13	22.00	0.04	32.00	0.02
2.25	3.63	12.25	0.12	22.25	0.04	32.25	0.02
2.50	2.94	12.50	0.12	22.50	0.04	32.50	0.02
2.75	2.43	12.75	0.11	22.75	0.04	32.75	0.02
3.00	2.04	13.00	0.11	23.00	0.03	33.00	0.02
3.25	1.74	13.25	0.10	23.25	0.03	33.25	0.02
3.50	1.50	13.50	0.10	23.50	0.03	33.50	0.02
3.75	1.31	13.75	0.10	23.75	0.03	33.75	0.02
4.00	1.15	14.00	0.09	24.00	0.03	34.00	0.02
4.25	1.02	14.25	0.09	24.25	0.03	34.25	0.02
4.50	0.91	14.50	0.09	24.50	0.03	34.50	0.02
4.75	0.82	14.75	0.08	24.75	0.03	34.75	0.02
5.00	0.74	15.00	0.08	25.00	0.03	35.00	0.02
5.25	0.67	15.25	0.08	25.25	0.03	35.25	0.01
5.50	0.61	15.50	0.08	25.50	0.03	35.50	0.01
5.75	0.56	15.75	0.07	25.75	0.03	35.75	0.01
6.00	0.51	16.00	0.07	26.00	0.03	36.00	0.01
6.25	0.47	16.25	0.07	26.25	0.03	36.25	0.01
6.50	0.44	16.50	0.07	26.50	0.03	36.50	0.01
6.75	0.40	16.75	0.07	26.75	0.03	36.75	0.01
7.00	0.38	17.00	0.06	27.00	0.03	37.00	0.01
7.25	0.35	17.25	0.06	27.25	0.02	37.25	0.01
7.50	0.33	17.50	0.06	27.50	0.02	37.50	0.01
7.75	0.31	17.75	0.06	27.75	0.02	37.75	0.01
8.00	0.29	18.00	0.06	28.00	0.02	38.00	0.01
8.25	0.27	18.25	0.06	28.25	0.02	38.25	0.01
8.50	0.25	18.50	0.05	28.50	0.02	38.50	0.01
8.75	0.24	18.75	0.05	28.75	0.02	38.75	0.01
9.00	0.23	19.00	0.05	29.00	0.02	39.00	0.01
9.25	0.22	19.25	0.05	29.25	0.02	39.25	0.01
9.50	0.20	19.50	0.05	29.50	0.02	39.50	0.01
9.75	0.19	19.75	0.05	29.75	0.02	39.75	0.01
10.00	0.18	20.00	0.05	30.00	0.02	40.00	0.01

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 – 100% reflections)

Meters 1 Electric Meter

Time Avg: 10%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.17

2.01 Inches

BioInitiative ft. 13.55

162.60 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	0.01	54.25	0.01	68.25	0.00	82.25	0.00
40.50	0.01	54.50	0.01	68.50	0.00	82.50	0.00
40.75	0.01	54.75	0.01	68.75	0.00	82.75	0.00
41.00	0.01	55.00	0.01	69.00	0.00	83.00	0.00
41.25	0.01	55.25	0.01	69.25	0.00	83.25	0.00
41.50	0.01	55.50	0.01	69.50	0.00	83.50	0.00
41.75	0.01	55.75	0.01	69.75	0.00	83.75	0.00
42.00	0.01	56.00	0.01	70.00	0.00	84.00	0.00
42.25	0.01	56.25	0.01	70.25	0.00	84.25	0.00
42.50	0.01	56.50	0.01	70.50	0.00	84.50	0.00
42.75	0.01	56.75	0.01	70.75	0.00	84.75	0.00
43.00	0.01	57.00	0.01	71.00	0.00	85.00	0.00
43.25	0.01	57.25	0.01	71.25	0.00	85.25	0.00
43.50	0.01	57.50	0.01	71.50	0.00	85.50	0.00
43.75	0.01	57.75	0.01	71.75	0.00	85.75	0.00
44.00	0.01	58.00	0.01	72.00	0.00	86.00	0.00
44.25	0.01	58.25	0.01	72.25	0.00	86.25	0.00
44.50	0.01	58.50	0.01	72.50	0.00	86.50	0.00
44.75	0.01	58.75	0.01	72.75	0.00	86.75	0.00
45.00	0.01	59.00	0.01	73.00	0.00	87.00	0.00
45.25	0.01	59.25	0.01	73.25	0.00	87.25	0.00
45.50	0.01	59.50	0.01	73.50	0.00	87.50	0.00
45.75	0.01	59.75	0.01	73.75	0.00	87.75	0.00
46.00	0.01	60.00	0.01	74.00	0.00	88.00	0.00
46.25	0.01	60.25	0.01	74.25	0.00	88.25	0.00
46.50	0.01	60.50	0.01	74.50	0.00	88.50	0.00
46.75	0.01	60.75	0.00	74.75	0.00	88.75	0.00
47.00	0.01	61.00	0.00	75.00	0.00	89.00	0.00
47.25	0.01	61.25	0.00	75.25	0.00	89.25	0.00
47.50	0.01	61.50	0.00	75.50	0.00	89.50	0.00
47.75	0.01	61.75	0.00	75.75	0.00	89.75	0.00
48.00	0.01	62.00	0.00	76.00	0.00	90.00	0.00
48.25	0.01	62.25	0.00	76.25	0.00	90.25	0.00
48.50	0.01	62.50	0.00	76.50	0.00	90.50	0.00
48.75	0.01	62.75	0.00	76.75	0.00	90.75	0.00
49.00	0.01	63.00	0.00	77.00	0.00	91.00	0.00
49.25	0.01	63.25	0.00	77.25	0.00	91.25	0.00
49.50	0.01	63.50	0.00	77.50	0.00	91.50	0.00
49.75	0.01	63.75	0.00	77.75	0.00	91.75	0.00
50.00	0.01	64.00	0.00	78.00	0.00	92.00	0.00
50.25	0.01	64.25	0.00	78.25	0.00	92.25	0.00
50.50	0.01	64.50	0.00	78.50	0.00	92.50	0.00
50.75	0.01	64.75	0.00	78.75	0.00	92.75	0.00
51.00	0.01	65.00	0.00	79.00	0.00	93.00	0.00
51.25	0.01	65.25	0.00	79.25	0.00	93.25	0.00
51.50	0.01	65.50	0.00	79.50	0.00	93.50	0.00
51.75	0.01	65.75	0.00	79.75	0.00	93.75	0.00
52.00	0.01	66.00	0.00	80.00	0.00	94.00	0.00
52.25	0.01	66.25	0.00	80.25	0.00	94.25	0.00
52.50	0.01	66.50	0.00	80.50	0.00	94.50	0.00
52.75	0.01	66.75	0.00	80.75	0.00	94.75	0.00
53.00	0.01	67.00	0.00	81.00	0.00	95.00	0.00
53.25	0.01	67.25	0.00	81.25	0.00	95.25	0.00
53.50	0.01	67.50	0.00	81.50	0.00	95.50	0.00
53.75	0.01	67.75	0.00	81.75	0.00	95.75	0.00
54.00	0.01	68.00	0.00	82.00	0.00	96.00	0.00

Table 2 – 10%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 100% reflections)

Meters 1 Electric Meter

Time Avg: 20%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.24 2.8 Inches

BioInitiative ft. 19.20 230.4 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	588.72	10.25	0.35	20.25	0.09	30.25	0.04
0.50	147.18	10.50	0.33	20.50	0.09	30.50	0.04
0.75	65.41	10.75	0.32	20.75	0.09	30.75	0.04
1.00	36.80	11.00	0.30	21.00	0.08	31.00	0.04
1.25	23.55	11.25	0.29	21.25	0.08	31.25	0.04
1.50	16.35	11.50	0.28	21.50	0.08	31.50	0.04
1.75	12.01	11.75	0.27	21.75	0.08	31.75	0.04
2.00	9.20	12.00	0.26	22.00	0.08	32.00	0.04
2.25	7.27	12.25	0.25	22.25	0.07	32.25	0.04
2.50	5.89	12.50	0.24	22.50	0.07	32.50	0.03
2.75	4.87	12.75	0.23	22.75	0.07	32.75	0.03
3.00	4.09	13.00	0.22	23.00	0.07	33.00	0.03
3.25	3.48	13.25	0.21	23.25	0.07	33.25	0.03
3.50	3.00	13.50	0.20	23.50	0.07	33.50	0.03
3.75	2.62	13.75	0.19	23.75	0.07	33.75	0.03
4.00	2.30	14.00	0.19	24.00	0.06	34.00	0.03
4.25	2.04	14.25	0.18	24.25	0.06	34.25	0.03
4.50	1.82	14.50	0.18	24.50	0.06	34.50	0.03
4.75	1.63	14.75	0.17	24.75	0.06	34.75	0.03
5.00	1.47	15.00	0.16	25.00	0.06	35.00	0.03
5.25	1.33	15.25	0.16	25.25	0.06	35.25	0.03
5.50	1.22	15.50	0.15	25.50	0.06	35.50	0.03
5.75	1.11	15.75	0.15	25.75	0.06	35.75	0.03
6.00	1.02	16.00	0.14	26.00	0.05	36.00	0.03
6.25	0.94	16.25	0.14	26.25	0.05	36.25	0.03
6.50	0.87	16.50	0.14	26.50	0.05	36.50	0.03
6.75	0.81	16.75	0.13	26.75	0.05	36.75	0.03
7.00	0.75	17.00	0.13	27.00	0.05	37.00	0.03
7.25	0.70	17.25	0.12	27.25	0.05	37.25	0.03
7.50	0.65	17.50	0.12	27.50	0.05	37.50	0.03
7.75	0.61	17.75	0.12	27.75	0.05	37.75	0.03
8.00	0.57	18.00	0.11	28.00	0.05	38.00	0.03
8.25	0.54	18.25	0.11	28.25	0.05	38.25	0.03
8.50	0.51	18.50	0.11	28.50	0.05	38.50	0.02
8.75	0.48	18.75	0.10	28.75	0.04	38.75	0.02
9.00	0.45	19.00	0.10	29.00	0.04	39.00	0.02
9.25	0.43	19.25	0.10	29.25	0.04	39.25	0.02
9.50	0.41	19.50	0.10	29.50	0.04	39.50	0.02
9.75	0.39	19.75	0.09	29.75	0.04	39.75	0.02
10.00	0.37	20.00	0.09	30.00	0.04	40.00	0.02

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 – 100% reflections)

Meters 1 Electric Meter

Time Avg: 20%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.24

2.85 Inches

BioInitiative ft. 19.20

230.40 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	0.02	54.25	0.01	68.25	0.01	82.25	0.01
40.50	0.02	54.50	0.01	68.50	0.01	82.50	0.01
40.75	0.02	54.75	0.01	68.75	0.01	82.75	0.01
41.00	0.02	55.00	0.01	69.00	0.01	83.00	0.01
41.25	0.02	55.25	0.01	69.25	0.01	83.25	0.01
41.50	0.02	55.50	0.01	69.50	0.01	83.50	0.01
41.75	0.02	55.75	0.01	69.75	0.01	83.75	0.01
42.00	0.02	56.00	0.01	70.00	0.01	84.00	0.01
42.25	0.02	56.25	0.01	70.25	0.01	84.25	0.01
42.50	0.02	56.50	0.01	70.50	0.01	84.50	0.01
42.75	0.02	56.75	0.01	70.75	0.01	84.75	0.01
43.00	0.02	57.00	0.01	71.00	0.01	85.00	0.01
43.25	0.02	57.25	0.01	71.25	0.01	85.25	0.01
43.50	0.02	57.50	0.01	71.50	0.01	85.50	0.01
43.75	0.02	57.75	0.01	71.75	0.01	85.75	0.01
44.00	0.02	58.00	0.01	72.00	0.01	86.00	0.00
44.25	0.02	58.25	0.01	72.25	0.01	86.25	0.00
44.50	0.02	58.50	0.01	72.50	0.01	86.50	0.00
44.75	0.02	58.75	0.01	72.75	0.01	86.75	0.00
45.00	0.02	59.00	0.01	73.00	0.01	87.00	0.00
45.25	0.02	59.25	0.01	73.25	0.01	87.25	0.00
45.50	0.02	59.50	0.01	73.50	0.01	87.50	0.00
45.75	0.02	59.75	0.01	73.75	0.01	87.75	0.00
46.00	0.02	60.00	0.01	74.00	0.01	88.00	0.00
46.25	0.02	60.25	0.01	74.25	0.01	88.25	0.00
46.50	0.02	60.50	0.01	74.50	0.01	88.50	0.00
46.75	0.02	60.75	0.01	74.75	0.01	88.75	0.00
47.00	0.02	61.00	0.01	75.00	0.01	89.00	0.00
47.25	0.02	61.25	0.01	75.25	0.01	89.25	0.00
47.50	0.02	61.50	0.01	75.50	0.01	89.50	0.00
47.75	0.02	61.75	0.01	75.75	0.01	89.75	0.00
48.00	0.02	62.00	0.01	76.00	0.01	90.00	0.00
48.25	0.02	62.25	0.01	76.25	0.01	90.25	0.00
48.50	0.02	62.50	0.01	76.50	0.01	90.50	0.00
48.75	0.02	62.75	0.01	76.75	0.01	90.75	0.00
49.00	0.02	63.00	0.01	77.00	0.01	91.00	0.00
49.25	0.02	63.25	0.01	77.25	0.01	91.25	0.00
49.50	0.02	63.50	0.01	77.50	0.01	91.50	0.00
49.75	0.01	63.75	0.01	77.75	0.01	91.75	0.00
50.00	0.01	64.00	0.01	78.00	0.01	92.00	0.00
50.25	0.01	64.25	0.01	78.25	0.01	92.25	0.00
50.50	0.01	64.50	0.01	78.50	0.01	92.50	0.00
50.75	0.01	64.75	0.01	78.75	0.01	92.75	0.00
51.00	0.01	65.00	0.01	79.00	0.01	93.00	0.00
51.25	0.01	65.25	0.01	79.25	0.01	93.25	0.00
51.50	0.01	65.50	0.01	79.50	0.01	93.50	0.00
51.75	0.01	65.75	0.01	79.75	0.01	93.75	0.00
52.00	0.01	66.00	0.01	80.00	0.01	94.00	0.00
52.25	0.01	66.25	0.01	80.25	0.01	94.25	0.00
52.50	0.01	66.50	0.01	80.50	0.01	94.50	0.00
52.75	0.01	66.75	0.01	80.75	0.01	94.75	0.00
53.00	0.01	67.00	0.01	81.00	0.01	95.00	0.00
53.25	0.01	67.25	0.01	81.25	0.01	95.25	0.00
53.50	0.01	67.50	0.01	81.50	0.01	95.50	0.00
53.75	0.01	67.75	0.01	81.75	0.01	95.75	0.00
54.00	0.01	68.00	0.01	82.00	0.01	96.00	0.00

Table 2 – 20%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 100% reflections)

Meters 1 Electric Meter

Time Avg: 30%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.29 3.5 Inches

BioInitiative ft. 23.50 282.0 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	883.08	10.25	0.53	20.25	0.13	30.25	0.06
0.50	220.77	10.50	0.50	20.50	0.13	30.50	0.06
0.75	98.12	10.75	0.48	20.75	0.13	30.75	0.06
1.00	55.19	11.00	0.46	21.00	0.13	31.00	0.06
1.25	35.32	11.25	0.44	21.25	0.12	31.25	0.06
1.50	24.53	11.50	0.42	21.50	0.12	31.50	0.06
1.75	18.02	11.75	0.40	21.75	0.12	31.75	0.05
2.00	13.80	12.00	0.38	22.00	0.11	32.00	0.05
2.25	10.90	12.25	0.37	22.25	0.11	32.25	0.05
2.50	8.83	12.50	0.35	22.50	0.11	32.50	0.05
2.75	7.30	12.75	0.34	22.75	0.11	32.75	0.05
3.00	6.13	13.00	0.33	23.00	0.10	33.00	0.05
3.25	5.23	13.25	0.31	23.25	0.10	33.25	0.05
3.50	4.51	13.50	0.30	23.50	0.10	33.50	0.05
3.75	3.92	13.75	0.29	23.75	0.10	33.75	0.05
4.00	3.45	14.00	0.28	24.00	0.10	34.00	0.05
4.25	3.06	14.25	0.27	24.25	0.09	34.25	0.05
4.50	2.73	14.50	0.26	24.50	0.09	34.50	0.05
4.75	2.45	14.75	0.25	24.75	0.09	34.75	0.05
5.00	2.21	15.00	0.25	25.00	0.09	35.00	0.05
5.25	2.00	15.25	0.24	25.25	0.09	35.25	0.04
5.50	1.82	15.50	0.23	25.50	0.08	35.50	0.04
5.75	1.67	15.75	0.22	25.75	0.08	35.75	0.04
6.00	1.53	16.00	0.22	26.00	0.08	36.00	0.04
6.25	1.41	16.25	0.21	26.25	0.08	36.25	0.04
6.50	1.31	16.50	0.20	26.50	0.08	36.50	0.04
6.75	1.21	16.75	0.20	26.75	0.08	36.75	0.04
7.00	1.13	17.00	0.19	27.00	0.08	37.00	0.04
7.25	1.05	17.25	0.19	27.25	0.07	37.25	0.04
7.50	0.98	17.50	0.18	27.50	0.07	37.50	0.04
7.75	0.92	17.75	0.18	27.75	0.07	37.75	0.04
8.00	0.86	18.00	0.17	28.00	0.07	38.00	0.04
8.25	0.81	18.25	0.17	28.25	0.07	38.25	0.04
8.50	0.76	18.50	0.16	28.50	0.07	38.50	0.04
8.75	0.72	18.75	0.16	28.75	0.07	38.75	0.04
9.00	0.68	19.00	0.15	29.00	0.07	39.00	0.04
9.25	0.65	19.25	0.15	29.25	0.06	39.25	0.04
9.50	0.61	19.50	0.15	29.50	0.06	39.50	0.04
9.75	0.58	19.75	0.14	29.75	0.06	39.75	0.03
10.00	0.55	20.00	0.14	30.00	0.06	40.00	0.03

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 – 100% reflections)

Meters 1 Electric Meter

Time Avg: 30%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.29

3.48 Inches

BioInitiative ft. 23.50

282.00 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	0.03	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	0.01	74.75	0.01	88.75	0.01
47.00	0.02	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 2 – 30%



# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 40%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.34 4.0 Inches

BioInitiative ft. 27.10 325.2 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	1177.44	10.25	0.70	20.25	0.18	30.25	0.08
0.50	294.36	10.50	0.67	20.50	0.18	30.50	0.08
0.75	130.83	10.75	0.64	20.75	0.17	30.75	0.08
1.00	73.59	11.00	0.61	21.00	0.17	31.00	0.08
1.25	47.10	11.25	0.58	21.25	0.16	31.25	0.08
1.50	32.71	11.50	0.56	21.50	0.16	31.50	0.07
1.75	24.03	11.75	0.53	21.75	0.16	31.75	0.07
2.00	18.40	12.00	0.51	22.00	0.15	32.00	0.07
2.25	14.54	12.25	0.49	22.25	0.15	32.25	0.07
2.50	11.77	12.50	0.47	22.50	0.15	32.50	0.07
2.75	9.73	12.75	0.45	22.75	0.14	32.75	0.07
3.00	8.18	13.00	0.44	23.00	0.14	33.00	0.07
3.25	6.97	13.25	0.42	23.25	0.14	33.25	0.07
3.50	6.01	13.50	0.40	23.50	0.13	33.50	0.07
3.75	5.23	13.75	0.39	23.75	0.13	33.75	0.06
4.00	4.60	14.00	0.38	24.00	0.13	34.00	0.06
4.25	4.07	14.25	0.36	24.25	0.13	34.25	0.06
4.50	3.63	14.50	0.35	24.50	0.12	34.50	0.06
4.75	3.26	14.75	0.34	24.75	0.12	34.75	0.06
5.00	2.94	15.00	0.33	25.00	0.12	35.00	0.06
5.25	2.67	15.25	0.32	25.25	0.12	35.25	0.06
5.50	2.43	15.50	0.31	25.50	0.11	35.50	0.06
5.75	2.23	15.75	0.30	25.75	0.11	35.75	0.06
6.00	2.04	16.00	0.29	26.00	0.11	36.00	0.06
6.25	1.88	16.25	0.28	26.25	0.11	36.25	0.06
6.50	1.74	16.50	0.27	26.50	0.10	36.50	0.06
6.75	1.62	16.75	0.26	26.75	0.10	36.75	0.05
7.00	1.50	17.00	0.25	27.00	0.10	37.00	0.05
7.25	1.40	17.25	0.25	27.25	0.10	37.25	0.05
7.50	1.31	17.50	0.24	27.50	0.10	37.50	0.05
7.75	1.23	17.75	0.23	27.75	0.10	37.75	0.05
8.00	1.15	18.00	0.23	28.00	0.09	38.00	0.05
8.25	1.08	18.25	0.22	28.25	0.09	38.25	0.05
8.50	1.02	18.50	0.22	28.50	0.09	38.50	0.05
8.75	0.96	18.75	0.21	28.75	0.09	38.75	0.05
9.00	0.91	19.00	0.20	29.00	0.09	39.00	0.05
9.25	0.86	19.25	0.20	29.25	0.09	39.25	0.05
9.50	0.82	19.50	0.19	29.50	0.08	39.50	0.05
9.75	0.77	19.75	0.19	29.75	0.08	39.75	0.05
10.00	0.74	20.00	0.18	30.00	0.08	40.00	0.05

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 – 100% reflections)

Meters 1 Electric Meter

Time Avg: 40%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.34

4.02 Inches

BioInitiative ft. 27.10

325.20 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	0.05	54.25	0.03	68.25	0.02	82.25	0.01
40.50	0.04	54.50	0.02	68.50	0.02	82.50	0.01
40.75	0.04	54.75	0.02	68.75	0.02	82.75	0.01
41.00	0.04	55.00	0.02	69.00	0.02	83.00	0.01
41.25	0.04	55.25	0.02	69.25	0.02	83.25	0.01
41.50	0.04	55.50	0.02	69.50	0.02	83.50	0.01
41.75	0.04	55.75	0.02	69.75	0.02	83.75	0.01
42.00	0.04	56.00	0.02	70.00	0.02	84.00	0.01
42.25	0.04	56.25	0.02	70.25	0.01	84.25	0.01
42.50	0.04	56.50	0.02	70.50	0.01	84.50	0.01
42.75	0.04	56.75	0.02	70.75	0.01	84.75	0.01
43.00	0.04	57.00	0.02	71.00	0.01	85.00	0.01
43.25	0.04	57.25	0.02	71.25	0.01	85.25	0.01
43.50	0.04	57.50	0.02	71.50	0.01	85.50	0.01
43.75	0.04	57.75	0.02	71.75	0.01	85.75	0.01
44.00	0.04	58.00	0.02	72.00	0.01	86.00	0.01
44.25	0.04	58.25	0.02	72.25	0.01	86.25	0.01
44.50	0.04	58.50	0.02	72.50	0.01	86.50	0.01
44.75	0.04	58.75	0.02	72.75	0.01	86.75	0.01
45.00	0.04	59.00	0.02	73.00	0.01	87.00	0.01
45.25	0.04	59.25	0.02	73.25	0.01	87.25	0.01
45.50	0.04	59.50	0.02	73.50	0.01	87.50	0.01
45.75	0.04	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	0.02	75.00	0.01	89.00	0.01
47.25	0.03	61.25	0.02	75.25	0.01	89.25	0.01
47.50	0.03	61.50	0.02	75.50	0.01	89.50	0.01
47.75	0.03	61.75	0.02	75.75	0.01	89.75	0.01
48.00	0.03	62.00	0.02	76.00	0.01	90.00	0.01
48.25	0.03	62.25	0.02	76.25	0.01	90.25	0.01
48.50	0.03	62.50	0.02	76.50	0.01	90.50	0.01
48.75	0.03	62.75	0.02	76.75	0.01	90.75	0.01
49.00	0.03	63.00	0.02	77.00	0.01	91.00	0.01
49.25	0.03	63.25	0.02	77.25	0.01	91.25	0.01
49.50	0.03	63.50	0.02	77.50	0.01	91.50	0.01
49.75	0.03	63.75	0.02	77.75	0.01	91.75	0.01
50.00	0.03	64.00	0.02	78.00	0.01	92.00	0.01
50.25	0.03	64.25	0.02	78.25	0.01	92.25	0.01
50.50	0.03	64.50	0.02	78.50	0.01	92.50	0.01
50.75	0.03	64.75	0.02	78.75	0.01	92.75	0.01
51.00	0.03	65.00	0.02	79.00	0.01	93.00	0.01
51.25	0.03	65.25	0.02	79.25	0.01	93.25	0.01
51.50	0.03	65.50	0.02	79.50	0.01	93.50	0.01
51.75	0.03	65.75	0.02	79.75	0.01	93.75	0.01
52.00	0.03	66.00	0.02	80.00	0.01	94.00	0.01
52.25	0.03	66.25	0.02	80.25	0.01	94.25	0.01
52.50	0.03	66.50	0.02	80.50	0.01	94.50	0.01
52.75	0.03	66.75	0.02	80.75	0.01	94.75	0.01
53.00	0.03	67.00	0.02	81.00	0.01	95.00	0.01
53.25	0.03	67.25	0.02	81.25	0.01	95.25	0.01
53.50	0.03	67.50	0.02	81.50	0.01	95.50	0.01
53.75	0.03	67.75	0.02	81.75	0.01	95.75	0.01
54.00	0.03	68.00	0.02	82.00	0.01	96.00	0.01

Table 2 – 40%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 100% reflections)

**Meters** 1 Electric Meter

Time Avg: 50%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.37 4.5 Inches

BioInitiative ft. 30.40 364.8 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	1471.80	10.25	0.88	20.25	0.22	30.25	0.10
0.50	367.95	10.50	0.83	20.50	0.22	30.50	0.10
0.75	163.53	10.75	0.80	20.75	0.21	30.75	0.10
1.00	91.99	11.00	0.76	21.00	0.21	31.00	0.10
1.25	58.87	11.25	0.73	21.25	0.20	31.25	0.09
1.50	40.88	11.50	0.70	21.50	0.20	31.50	0.09
1.75	30.04	11.75	0.67	21.75	0.19	31.75	0.09
2.00	23.00	12.00	0.64	22.00	0.19	32.00	0.09
2.25	18.17	12.25	0.61	22.25	0.19	32.25	0.09
2.50	14.72	12.50	0.59	22.50	0.18	32.50	0.09
2.75	12.16	12.75	0.57	22.75	0.18	32.75	0.09
3.00	10.22	13.00	0.54	23.00	0.17	33.00	0.08
3.25	8.71	13.25	0.52	23.25	0.17	33.25	0.08
3.50	7.51	13.50	0.50	23.50	0.17	33.50	0.08
3.75	6.54	13.75	0.49	23.75	0.16	33.75	0.08
4.00	5.75	14.00	0.47	24.00	0.16	34.00	0.08
4.25	5.09	14.25	0.45	24.25	0.16	34.25	0.08
4.50	4.54	14.50	0.44	24.50	0.15	34.50	0.08
4.75	4.08	14.75	0.42	24.75	0.15	34.75	0.08
5.00	3.68	15.00	0.41	25.00	0.15	35.00	0.08
5.25	3.34	15.25	0.40	25.25	0.14	35.25	0.07
5.50	3.04	15.50	0.38	25.50	0.14	35.50	0.07
5.75	2.78	15.75	0.37	25.75	0.14	35.75	0.07
6.00	2.56	16.00	0.36	26.00	0.14	36.00	0.07
6.25	2.35	16.25	0.35	26.25	0.13	36.25	0.07
6.50	2.18	16.50	0.34	26.50	0.13	36.50	0.07
6.75	2.02	16.75	0.33	26.75	0.13	36.75	0.07
7.00	1.88	17.00	0.32	27.00	0.13	37.00	0.07
7.25	1.75	17.25	0.31	27.25	0.12	37.25	0.07
7.50	1.64	17.50	0.30	27.50	0.12	37.50	0.07
7.75	1.53	17.75	0.29	27.75	0.12	37.75	0.06
8.00	1.44	18.00	0.28	28.00	0.12	38.00	0.06
8.25	1.35	18.25	0.28	28.25	0.12	38.25	0.06
8.50	1.27	18.50	0.27	28.50	0.11	38.50	0.06
8.75	1.20	18.75	0.26	28.75	0.11	38.75	0.06
9.00	1.14	19.00	0.25	29.00	0.11	39.00	0.06
9.25	1.08	19.25	0.25	29.25	0.11	39.25	0.06
9.50	1.02	19.50	0.24	29.50	0.11	39.50	0.06
9.75	0.97	19.75	0.24	29.75	0.10	39.75	0.06
10.00	0.92	20.00	0.23	30.00	0.10	40.00	0.06

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 – 100% reflections)

Meters 1 Electric Meter

Time Avg: 50%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.37

4.50 Inches

BioInitiative ft. 30.40

364.80 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	0.06	54.25	0.03	68.25	0.02	82.25	0.01
40.50	0.06	54.50	0.03	68.50	0.02	82.50	0.01
40.75	0.06	54.75	0.03	68.75	0.02	82.75	0.01
41.00	0.05	55.00	0.03	69.00	0.02	83.00	0.01
41.25	0.05	55.25	0.03	69.25	0.02	83.25	0.01
41.50	0.05	55.50	0.03	69.50	0.02	83.50	0.01
41.75	0.05	55.75	0.03	69.75	0.02	83.75	0.01
42.00	0.05	56.00	0.03	70.00	0.02	84.00	0.01
42.25	0.05	56.25	0.03	70.25	0.02	84.25	0.01
42.50	0.05	56.50	0.03	70.50	0.02	84.50	0.01
42.75	0.05	56.75	0.03	70.75	0.02	84.75	0.01
43.00	0.05	57.00	0.03	71.00	0.02	85.00	0.01
43.25	0.05	57.25	0.03	71.25	0.02	85.25	0.01
43.50	0.05	57.50	0.03	71.50	0.02	85.50	0.01
43.75	0.05	57.75	0.03	71.75	0.02	85.75	0.01
44.00	0.05	58.00	0.03	72.00	0.02	86.00	0.01
44.25	0.05	58.25	0.03	72.25	0.02	86.25	0.01
44.50	0.05	58.50	0.03	72.50	0.02	86.50	0.01
44.75	0.05	58.75	0.03	72.75	0.02	86.75	0.01
45.00	0.05	59.00	0.03	73.00	0.02	87.00	0.01
45.25	0.04	59.25	0.03	73.25	0.02	87.25	0.01
45.50	0.04	59.50	0.03	73.50	0.02	87.50	0.01
45.75	0.04	59.75	0.03	73.75	0.02	87.75	0.01
46.00	0.04	60.00	0.03	74.00	0.02	88.00	0.01
46.25	0.04	60.25	0.03	74.25	0.02	88.25	0.01
46.50	0.04	60.50	0.03	74.50	0.02	88.50	0.01
46.75	0.04	60.75	0.02	74.75	0.02	88.75	0.01
47.00	0.04	61.00	0.02	75.00	0.02	89.00	0.01
47.25	0.04	61.25	0.02	75.25	0.02	89.25	0.01
47.50	0.04	61.50	0.02	75.50	0.02	89.50	0.01
47.75	0.04	61.75	0.02	75.75	0.02	89.75	0.01
48.00	0.04	62.00	0.02	76.00	0.02	90.00	0.01
48.25	0.04	62.25	0.02	76.25	0.02	90.25	0.01
48.50	0.04	62.50	0.02	76.50	0.02	90.50	0.01
48.75	0.04	62.75	0.02	76.75	0.02	90.75	0.01
49.00	0.04	63.00	0.02	77.00	0.02	91.00	0.01
49.25	0.04	63.25	0.02	77.25	0.02	91.25	0.01
49.50	0.04	63.50	0.02	77.50	0.02	91.50	0.01
49.75	0.04	63.75	0.02	77.75	0.02	91.75	0.01
50.00	0.04	64.00	0.02	78.00	0.02	92.00	0.01
50.25	0.04	64.25	0.02	78.25	0.02	92.25	0.01
50.50	0.04	64.50	0.02	78.50	0.01	92.50	0.01
50.75	0.04	64.75	0.02	78.75	0.01	92.75	0.01
51.00	0.04	65.00	0.02	79.00	0.01	93.00	0.01
51.25	0.04	65.25	0.02	79.25	0.01	93.25	0.01
51.50	0.03	65.50	0.02	79.50	0.01	93.50	0.01
51.75	0.03	65.75	0.02	79.75	0.01	93.75	0.01
52.00	0.03	66.00	0.02	80.00	0.01	94.00	0.01
52.25	0.03	66.25	0.02	80.25	0.01	94.25	0.01
52.50	0.03	66.50	0.02	80.50	0.01	94.50	0.01
52.75	0.03	66.75	0.02	80.75	0.01	94.75	0.01
53.00	0.03	67.00	0.02	81.00	0.01	95.00	0.01
53.25	0.03	67.25	0.02	81.25	0.01	95.25	0.01
53.50	0.03	67.50	0.02	81.50	0.01	95.50	0.01
53.75	0.03	67.75	0.02	81.75	0.01	95.75	0.01
54.00	0.03	68.00	0.02	82.00	0.01	96.00	0.01

Table 2 – 50%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 100% reflections)

Meters 1 Electric Meter

Time Avg: 60%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.41 4.9 Inches

BioInitiative ft. 33.20 398.4 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	1766.16	10.25	1.05	20.25	0.27	30.25	0.12
0.50	441.54	10.50	1.00	20.50	0.26	30.50	0.12
0.75	196.24	10.75	0.96	20.75	0.26	30.75	0.12
1.00	110.39	11.00	0.91	21.00	0.25	31.00	0.11
1.25	70.65	11.25	0.87	21.25	0.24	31.25	0.11
1.50	49.06	11.50	0.83	21.50	0.24	31.50	0.11
1.75	36.04	11.75	0.80	21.75	0.23	31.75	0.11
2.00	27.60	12.00	0.77	22.00	0.23	32.00	0.11
2.25	21.80	12.25	0.74	22.25	0.22	32.25	0.11
2.50	17.66	12.50	0.71	22.50	0.22	32.50	0.10
2.75	14.60	12.75	0.68	22.75	0.21	32.75	0.10
3.00	12.27	13.00	0.65	23.00	0.21	33.00	0.10
3.25	10.45	13.25	0.63	23.25	0.20	33.25	0.10
3.50	9.01	13.50	0.61	23.50	0.20	33.50	0.10
3.75	7.85	13.75	0.58	23.75	0.20	33.75	0.10
4.00	6.90	14.00	0.56	24.00	0.19	34.00	0.10
4.25	6.11	14.25	0.54	24.25	0.19	34.25	0.09
4.50	5.45	14.50	0.53	24.50	0.18	34.50	0.09
4.75	4.89	14.75	0.51	24.75	0.18	34.75	0.09
5.00	4.42	15.00	0.49	25.00	0.18	35.00	0.09
5.25	4.00	15.25	0.47	25.25	0.17	35.25	0.09
5.50	3.65	15.50	0.46	25.50	0.17	35.50	0.09
5.75	3.34	15.75	0.44	25.75	0.17	35.75	0.09
6.00	3.07	16.00	0.43	26.00	0.16	36.00	0.09
6.25	2.83	16.25	0.42	26.25	0.16	36.25	0.08
6.50	2.61	16.50	0.41	26.50	0.16	36.50	0.08
6.75	2.42	16.75	0.39	26.75	0.15	36.75	0.08
7.00	2.25	17.00	0.38	27.00	0.15	37.00	0.08
7.25	2.10	17.25	0.37	27.25	0.15	37.25	0.08
7.50	1.96	17.50	0.36	27.50	0.15	37.50	0.08
7.75	1.84	17.75	0.35	27.75	0.14	37.75	0.08
8.00	1.72	18.00	0.34	28.00	0.14	38.00	0.08
8.25	1.62	18.25	0.33	28.25	0.14	38.25	0.08
8.50	1.53	18.50	0.32	28.50	0.14	38.50	0.07
8.75	1.44	18.75	0.31	28.75	0.13	38.75	0.07
9.00	1.36	19.00	0.31	29.00	0.13	39.00	0.07
9.25	1.29	19.25	0.30	29.25	0.13	39.25	0.07
9.50	1.22	19.50	0.29	29.50	0.13	39.50	0.07
9.75	1.16	19.75	0.28	29.75	0.12	39.75	0.07
10.00	1.10	20.00	0.28	30.00	0.12	40.00	0.07

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 – 100% reflections)

Meters 1 Electric Meter

Time Avg: 60%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.41

4.93 Inches

BioInitiative ft. 33.20

398.40 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	0.07	54.25	0.04	68.25	0.02	82.25	0.02
40.50	0.07	54.50	0.04	68.50	0.02	82.50	0.02
40.75	0.07	54.75	0.04	68.75	0.02	82.75	0.02
41.00	0.07	55.00	0.04	69.00	0.02	83.00	0.02
41.25	0.06	55.25	0.04	69.25	0.02	83.25	0.02
41.50	0.06	55.50	0.04	69.50	0.02	83.50	0.02
41.75	0.06	55.75	0.04	69.75	0.02	83.75	0.02
42.00	0.06	56.00	0.04	70.00	0.02	84.00	0.02
42.25	0.06	56.25	0.03	70.25	0.02	84.25	0.02
42.50	0.06	56.50	0.03	70.50	0.02	84.50	0.02
42.75	0.06	56.75	0.03	70.75	0.02	84.75	0.02
43.00	0.06	57.00	0.03	71.00	0.02	85.00	0.02
43.25	0.06	57.25	0.03	71.25	0.02	85.25	0.02
43.50	0.06	57.50	0.03	71.50	0.02	85.50	0.02
43.75	0.06	57.75	0.03	71.75	0.02	85.75	0.02
44.00	0.06	58.00	0.03	72.00	0.02	86.00	0.01
44.25	0.06	58.25	0.03	72.25	0.02	86.25	0.01
44.50	0.06	58.50	0.03	72.50	0.02	86.50	0.01
44.75	0.06	58.75	0.03	72.75	0.02	86.75	0.01
45.00	0.05	59.00	0.03	73.00	0.02	87.00	0.01
45.25	0.05	59.25	0.03	73.25	0.02	87.25	0.01
45.50	0.05	59.50	0.03	73.50	0.02	87.50	0.01
45.75	0.05	59.75	0.03	73.75	0.02	87.75	0.01
46.00	0.05	60.00	0.03	74.00	0.02	88.00	0.01
46.25	0.05	60.25	0.03	74.25	0.02	88.25	0.01
46.50	0.05	60.50	0.03	74.50	0.02	88.50	0.01
46.75	0.05	60.75	0.03	74.75	0.02	88.75	0.01
47.00	0.05	61.00	0.03	75.00	0.02	89.00	0.01
47.25	0.05	61.25	0.03	75.25	0.02	89.25	0.01
47.50	0.05	61.50	0.03	75.50	0.02	89.50	0.01
47.75	0.05	61.75	0.03	75.75	0.02	89.75	0.01
48.00	0.05	62.00	0.03	76.00	0.02	90.00	0.01
48.25	0.05	62.25	0.03	76.25	0.02	90.25	0.01
48.50	0.05	62.50	0.03	76.50	0.02	90.50	0.01
48.75	0.05	62.75	0.03	76.75	0.02	90.75	0.01
49.00	0.05	63.00	0.03	77.00	0.02	91.00	0.01
49.25	0.05	63.25	0.03	77.25	0.02	91.25	0.01
49.50	0.05	63.50	0.03	77.50	0.02	91.50	0.01
49.75	0.04	63.75	0.03	77.75	0.02	91.75	0.01
50.00	0.04	64.00	0.03	78.00	0.02	92.00	0.01
50.25	0.04	64.25	0.03	78.25	0.02	92.25	0.01
50.50	0.04	64.50	0.03	78.50	0.02	92.50	0.01
50.75	0.04	64.75	0.03	78.75	0.02	92.75	0.01
51.00	0.04	65.00	0.03	79.00	0.02	93.00	0.01
51.25	0.04	65.25	0.03	79.25	0.02	93.25	0.01
51.50	0.04	65.50	0.03	79.50	0.02	93.50	0.01
51.75	0.04	65.75	0.03	79.75	0.02	93.75	0.01
52.00	0.04	66.00	0.03	80.00	0.02	94.00	0.01
52.25	0.04	66.25	0.03	80.25	0.02	94.25	0.01
52.50	0.04	66.50	0.02	80.50	0.02	94.50	0.01
52.75	0.04	66.75	0.02	80.75	0.02	94.75	0.01
53.00	0.04	67.00	0.02	81.00	0.02	95.00	0.01
53.25	0.04	67.25	0.02	81.25	0.02	95.25	0.01
53.50	0.04	67.50	0.02	81.50	0.02	95.50	0.01
53.75	0.04	67.75	0.02	81.75	0.02	95.75	0.01
54.00	0.04	68.00	0.02	82.00	0.02	96.00	0.01

Table 2 – 60%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 100% reflections)

Meters 1 Electric Meter

Time Avg: 70%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.44 5.3 Inches

BioInitiative ft. 35.80 429.6 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	2060.52	10.25	1.23	20.25	0.31	30.25	0.14
0.50	515.13	10.50	1.17	20.50	0.31	30.50	0.14
0.75	228.95	10.75	1.11	20.75	0.30	30.75	0.14
1.00	128.78	11.00	1.06	21.00	0.29	31.00	0.13
1.25	82.42	11.25	1.02	21.25	0.29	31.25	0.13
1.50	57.24	11.50	0.97	21.50	0.28	31.50	0.13
1.75	42.05	11.75	0.93	21.75	0.27	31.75	0.13
2.00	32.20	12.00	0.89	22.00	0.27	32.00	0.13
2.25	25.44	12.25	0.86	22.25	0.26	32.25	0.12
2.50	20.61	12.50	0.82	22.50	0.25	32.50	0.12
2.75	17.03	12.75	0.79	22.75	0.25	32.75	0.12
3.00	14.31	13.00	0.76	23.00	0.24	33.00	0.12
3.25	12.19	13.25	0.73	23.25	0.24	33.25	0.12
3.50	10.51	13.50	0.71	23.50	0.23	33.50	0.11
3.75	9.16	13.75	0.68	23.75	0.23	33.75	0.11
4.00	8.05	14.00	0.66	24.00	0.22	34.00	0.11
4.25	7.13	14.25	0.63	24.25	0.22	34.25	0.11
4.50	6.36	14.50	0.61	24.50	0.21	34.50	0.11
4.75	5.71	14.75	0.59	24.75	0.21	34.75	0.11
5.00	5.15	15.00	0.57	25.00	0.21	35.00	0.11
5.25	4.67	15.25	0.55	25.25	0.20	35.25	0.10
5.50	4.26	15.50	0.54	25.50	0.20	35.50	0.10
5.75	3.90	15.75	0.52	25.75	0.19	35.75	0.10
6.00	3.58	16.00	0.50	26.00	0.19	36.00	0.10
6.25	3.30	16.25	0.49	26.25	0.19	36.25	0.10
6.50	3.05	16.50	0.47	26.50	0.18	36.50	0.10
6.75	2.83	16.75	0.46	26.75	0.18	36.75	0.10
7.00	2.63	17.00	0.45	27.00	0.18	37.00	0.09
7.25	2.45	17.25	0.43	27.25	0.17	37.25	0.09
7.50	2.29	17.50	0.42	27.50	0.17	37.50	0.09
7.75	2.14	17.75	0.41	27.75	0.17	37.75	0.09
8.00	2.01	18.00	0.40	28.00	0.16	38.00	0.09
8.25	1.89	18.25	0.39	28.25	0.16	38.25	0.09
8.50	1.78	18.50	0.38	28.50	0.16	38.50	0.09
8.75	1.68	18.75	0.37	28.75	0.16	38.75	0.09
9.00	1.59	19.00	0.36	29.00	0.15	39.00	0.08
9.25	1.51	19.25	0.35	29.25	0.15	39.25	0.08
9.50	1.43	19.50	0.34	29.50	0.15	39.50	0.08
9.75	1.35	19.75	0.33	29.75	0.15	39.75	0.08
10.00	1.29	20.00	0.32	30.00	0.14	40.00	0.08

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
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- 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
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- 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 – 100% reflections)

Meters 1 Electric Meter

Time Avg: 70%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.44

5.32 Inches

BioInitiative ft. 35.80

429.60 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	0.08	54.25	0.04	68.25	0.03	82.25	0.02
40.50	0.08	54.50	0.04	68.50	0.03	82.50	0.02
40.75	0.08	54.75	0.04	68.75	0.03	82.75	0.02
41.00	0.08	55.00	0.04	69.00	0.03	83.00	0.02
41.25	0.08	55.25	0.04	69.25	0.03	83.25	0.02
41.50	0.07	55.50	0.04	69.50	0.03	83.50	0.02
41.75	0.07	55.75	0.04	69.75	0.03	83.75	0.02
42.00	0.07	56.00	0.04	70.00	0.03	84.00	0.02
42.25	0.07	56.25	0.04	70.25	0.03	84.25	0.02
42.50	0.07	56.50	0.04	70.50	0.03	84.50	0.02
42.75	0.07	56.75	0.04	70.75	0.03	84.75	0.02
43.00	0.07	57.00	0.04	71.00	0.03	85.00	0.02
43.25	0.07	57.25	0.04	71.25	0.03	85.25	0.02
43.50	0.07	57.50	0.04	71.50	0.03	85.50	0.02
43.75	0.07	57.75	0.04	71.75	0.03	85.75	0.02
44.00	0.07	58.00	0.04	72.00	0.02	86.00	0.02
44.25	0.07	58.25	0.04	72.25	0.02	86.25	0.02
44.50	0.07	58.50	0.04	72.50	0.02	86.50	0.02
44.75	0.06	58.75	0.04	72.75	0.02	86.75	0.02
45.00	0.06	59.00	0.04	73.00	0.02	87.00	0.02
45.25	0.06	59.25	0.04	73.25	0.02	87.25	0.02
45.50	0.06	59.50	0.04	73.50	0.02	87.50	0.02
45.75	0.06	59.75	0.04	73.75	0.02	87.75	0.02
46.00	0.06	60.00	0.04	74.00	0.02	88.00	0.02
46.25	0.06	60.25	0.04	74.25	0.02	88.25	0.02
46.50	0.06	60.50	0.04	74.50	0.02	88.50	0.02
46.75	0.06	60.75	0.03	74.75	0.02	88.75	0.02
47.00	0.06	61.00	0.03	75.00	0.02	89.00	0.02
47.25	0.06	61.25	0.03	75.25	0.02	89.25	0.02
47.50	0.06	61.50	0.03	75.50	0.02	89.50	0.02
47.75	0.06	61.75	0.03	75.75	0.02	89.75	0.02
48.00	0.06	62.00	0.03	76.00	0.02	90.00	0.02
48.25	0.06	62.25	0.03	76.25	0.02	90.25	0.02
48.50	0.05	62.50	0.03	76.50	0.02	90.50	0.02
48.75	0.05	62.75	0.03	76.75	0.02	90.75	0.02
49.00	0.05	63.00	0.03	77.00	0.02	91.00	0.02
49.25	0.05	63.25	0.03	77.25	0.02	91.25	0.02
49.50	0.05	63.50	0.03	77.50	0.02	91.50	0.02
49.75	0.05	63.75	0.03	77.75	0.02	91.75	0.02
50.00	0.05	64.00	0.03	78.00	0.02	92.00	0.02
50.25	0.05	64.25	0.03	78.25	0.02	92.25	0.02
50.50	0.05	64.50	0.03	78.50	0.02	92.50	0.02
50.75	0.05	64.75	0.03	78.75	0.02	92.75	0.01
51.00	0.05	65.00	0.03	79.00	0.02	93.00	0.01
51.25	0.05	65.25	0.03	79.25	0.02	93.25	0.01
51.50	0.05	65.50	0.03	79.50	0.02	93.50	0.01
51.75	0.05	65.75	0.03	79.75	0.02	93.75	0.01
52.00	0.05	66.00	0.03	80.00	0.02	94.00	0.01
52.25	0.05	66.25	0.03	80.25	0.02	94.25	0.01
52.50	0.05	66.50	0.03	80.50	0.02	94.50	0.01
52.75	0.05	66.75	0.03	80.75	0.02	94.75	0.01
53.00	0.05	67.00	0.03	81.00	0.02	95.00	0.01
53.25	0.05	67.25	0.03	81.25	0.02	95.25	0.01
53.50	0.04	67.50	0.03	81.50	0.02	95.50	0.01
53.75	0.04	67.75	0.03	81.75	0.02	95.75	0.01
54.00	0.04	68.00	0.03	82.00	0.02	96.00	0.01

Table 2 – 70%



# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 100% reflections)

Meters 1 Electric Meter

Time Avg: 80%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.47 5.7 Inches

BioInitiative ft. 38.30 459.6 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	2354.88	10.25	1.40	20.25	0.36	30.25	0.16
0.50	588.72	10.50	1.33	20.50	0.35	30.50	0.16
0.75	261.65	10.75	1.27	20.75	0.34	30.75	0.16
1.00	147.18	11.00	1.22	21.00	0.33	31.00	0.15
1.25	94.20	11.25	1.16	21.25	0.33	31.25	0.15
1.50	65.41	11.50	1.11	21.50	0.32	31.50	0.15
1.75	48.06	11.75	1.07	21.75	0.31	31.75	0.15
2.00	36.80	12.00	1.02	22.00	0.30	32.00	0.14
2.25	29.07	12.25	0.98	22.25	0.30	32.25	0.14
2.50	23.55	12.50	0.94	22.50	0.29	32.50	0.14
2.75	19.46	12.75	0.91	22.75	0.28	32.75	0.14
3.00	16.35	13.00	0.87	23.00	0.28	33.00	0.14
3.25	13.93	13.25	0.84	23.25	0.27	33.25	0.13
3.50	12.01	13.50	0.81	23.50	0.27	33.50	0.13
3.75	10.47	13.75	0.78	23.75	0.26	33.75	0.13
4.00	9.20	14.00	0.75	24.00	0.26	34.00	0.13
4.25	8.15	14.25	0.72	24.25	0.25	34.25	0.13
4.50	7.27	14.50	0.70	24.50	0.25	34.50	0.12
4.75	6.52	14.75	0.68	24.75	0.24	34.75	0.12
5.00	5.89	15.00	0.65	25.00	0.24	35.00	0.12
5.25	5.34	15.25	0.63	25.25	0.23	35.25	0.12
5.50	4.87	15.50	0.61	25.50	0.23	35.50	0.12
5.75	4.45	15.75	0.59	25.75	0.22	35.75	0.12
6.00	4.09	16.00	0.57	26.00	0.22	36.00	0.11
6.25	3.77	16.25	0.56	26.25	0.21	36.25	0.11
6.50	3.48	16.50	0.54	26.50	0.21	36.50	0.11
6.75	3.23	16.75	0.52	26.75	0.21	36.75	0.11
7.00	3.00	17.00	0.51	27.00	0.20	37.00	0.11
7.25	2.80	17.25	0.49	27.25	0.20	37.25	0.11
7.50	2.62	17.50	0.48	27.50	0.19	37.50	0.10
7.75	2.45	17.75	0.47	27.75	0.19	37.75	0.10
8.00	2.30	18.00	0.45	28.00	0.19	38.00	0.10
8.25	2.16	18.25	0.44	28.25	0.18	38.25	0.10
8.50	2.04	18.50	0.43	28.50	0.18	38.50	0.10
8.75	1.92	18.75	0.42	28.75	0.18	38.75	0.10
9.00	1.82	19.00	0.41	29.00	0.18	39.00	0.10
9.25	1.72	19.25	0.40	29.25	0.17	39.25	0.10
9.50	1.63	19.50	0.39	29.50	0.17	39.50	0.09
9.75	1.55	19.75	0.38	29.75	0.17	39.75	0.09
10.00	1.47	20.00	0.37	30.00	0.16	40.00	0.09

Notes:

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

$$S = \text{EIRP} \cdot [\text{TA} \cdot (1 + \% \text{Ref})^2] / (4\pi \cdot R^2)$$
  - 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 – 100% reflections)

Meters 1 Electric Meter

Time Avg: 80%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.47

5.69 Inches

BioInitiative ft. 38.30

459.60 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	0.09	54.25	0.05	68.25	0.03	82.25	0.02
40.50	0.09	54.50	0.05	68.50	0.03	82.50	0.02
40.75	0.09	54.75	0.05	68.75	0.03	82.75	0.02
41.00	0.09	55.00	0.05	69.00	0.03	83.00	0.02
41.25	0.09	55.25	0.05	69.25	0.03	83.25	0.02
41.50	0.09	55.50	0.05	69.50	0.03	83.50	0.02
41.75	0.08	55.75	0.05	69.75	0.03	83.75	0.02
42.00	0.08	56.00	0.05	70.00	0.03	84.00	0.02
42.25	0.08	56.25	0.05	70.25	0.03	84.25	0.02
42.50	0.08	56.50	0.05	70.50	0.03	84.50	0.02
42.75	0.08	56.75	0.05	70.75	0.03	84.75	0.02
43.00	0.08	57.00	0.05	71.00	0.03	85.00	0.02
43.25	0.08	57.25	0.04	71.25	0.03	85.25	0.02
43.50	0.08	57.50	0.04	71.50	0.03	85.50	0.02
43.75	0.08	57.75	0.04	71.75	0.03	85.75	0.02
44.00	0.08	58.00	0.04	72.00	0.03	86.00	0.02
44.25	0.08	58.25	0.04	72.25	0.03	86.25	0.02
44.50	0.07	58.50	0.04	72.50	0.03	86.50	0.02
44.75	0.07	58.75	0.04	72.75	0.03	86.75	0.02
45.00	0.07	59.00	0.04	73.00	0.03	87.00	0.02
45.25	0.07	59.25	0.04	73.25	0.03	87.25	0.02
45.50	0.07	59.50	0.04	73.50	0.03	87.50	0.02
45.75	0.07	59.75	0.04	73.75	0.03	87.75	0.02
46.00	0.07	60.00	0.04	74.00	0.03	88.00	0.02
46.25	0.07	60.25	0.04	74.25	0.03	88.25	0.02
46.50	0.07	60.50	0.04	74.50	0.03	88.50	0.02
46.75	0.07	60.75	0.04	74.75	0.03	88.75	0.02
47.00	0.07	61.00	0.04	75.00	0.03	89.00	0.02
47.25	0.07	61.25	0.04	75.25	0.03	89.25	0.02
47.50	0.07	61.50	0.04	75.50	0.03	89.50	0.02
47.75	0.06	61.75	0.04	75.75	0.03	89.75	0.02
48.00	0.06	62.00	0.04	76.00	0.03	90.00	0.02
48.25	0.06	62.25	0.04	76.25	0.03	90.25	0.02
48.50	0.06	62.50	0.04	76.50	0.03	90.50	0.02
48.75	0.06	62.75	0.04	76.75	0.02	90.75	0.02
49.00	0.06	63.00	0.04	77.00	0.02	91.00	0.02
49.25	0.06	63.25	0.04	77.25	0.02	91.25	0.02
49.50	0.06	63.50	0.04	77.50	0.02	91.50	0.02
49.75	0.06	63.75	0.04	77.75	0.02	91.75	0.02
50.00	0.06	64.00	0.04	78.00	0.02	92.00	0.02
50.25	0.06	64.25	0.04	78.25	0.02	92.25	0.02
50.50	0.06	64.50	0.04	78.50	0.02	92.50	0.02
50.75	0.06	64.75	0.04	78.75	0.02	92.75	0.02
51.00	0.06	65.00	0.03	79.00	0.02	93.00	0.02
51.25	0.06	65.25	0.03	79.25	0.02	93.25	0.02
51.50	0.06	65.50	0.03	79.50	0.02	93.50	0.02
51.75	0.05	65.75	0.03	79.75	0.02	93.75	0.02
52.00	0.05	66.00	0.03	80.00	0.02	94.00	0.02
52.25	0.05	66.25	0.03	80.25	0.02	94.25	0.02
52.50	0.05	66.50	0.03	80.50	0.02	94.50	0.02
52.75	0.05	66.75	0.03	80.75	0.02	94.75	0.02
53.00	0.05	67.00	0.03	81.00	0.02	95.00	0.02
53.25	0.05	67.25	0.03	81.25	0.02	95.25	0.02
53.50	0.05	67.50	0.03	81.50	0.02	95.50	0.02
53.75	0.05	67.75	0.03	81.75	0.02	95.75	0.02
54.00	0.05	68.00	0.03	82.00	0.02	96.00	0.02

Table 2 – 80%

# SMART Meter Power Density Computer Modeling

(1 SMART Meter only – 100% reflections)

Meters 1 Electric Meter

Time Avg: 90%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.50 6.0 Inches

BioInitiative ft. 40.60 487.2 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	2649.24	10.25	1.58	20.25	0.40	30.25	0.18
0.50	662.31	10.50	1.50	20.50	0.39	30.50	0.18
0.75	294.36	10.75	1.43	20.75	0.38	30.75	0.18
1.00	165.58	11.00	1.37	21.00	0.38	31.00	0.17
1.25	105.97	11.25	1.31	21.25	0.37	31.25	0.17
1.50	73.59	11.50	1.25	21.50	0.36	31.50	0.17
1.75	54.07	11.75	1.20	21.75	0.35	31.75	0.16
2.00	41.39	12.00	1.15	22.00	0.34	32.00	0.16
2.25	32.71	12.25	1.10	22.25	0.33	32.25	0.16
2.50	26.49	12.50	1.06	22.50	0.33	32.50	0.16
2.75	21.89	12.75	1.02	22.75	0.32	32.75	0.15
3.00	18.40	13.00	0.98	23.00	0.31	33.00	0.15
3.25	15.68	13.25	0.94	23.25	0.31	33.25	0.15
3.50	13.52	13.50	0.91	23.50	0.30	33.50	0.15
3.75	11.77	13.75	0.88	23.75	0.29	33.75	0.15
4.00	10.35	14.00	0.84	24.00	0.29	34.00	0.14
4.25	9.17	14.25	0.82	24.25	0.28	34.25	0.14
4.50	8.18	14.50	0.79	24.50	0.28	34.50	0.14
4.75	7.34	14.75	0.76	24.75	0.27	34.75	0.14
5.00	6.62	15.00	0.74	25.00	0.26	35.00	0.14
5.25	6.01	15.25	0.71	25.25	0.26	35.25	0.13
5.50	5.47	15.50	0.69	25.50	0.25	35.50	0.13
5.75	5.01	15.75	0.67	25.75	0.25	35.75	0.13
6.00	4.60	16.00	0.65	26.00	0.24	36.00	0.13
6.25	4.24	16.25	0.63	26.25	0.24	36.25	0.13
6.50	3.92	16.50	0.61	26.50	0.24	36.50	0.12
6.75	3.63	16.75	0.59	26.75	0.23	36.75	0.12
7.00	3.38	17.00	0.57	27.00	0.23	37.00	0.12
7.25	3.15	17.25	0.56	27.25	0.22	37.25	0.12
7.50	2.94	17.50	0.54	27.50	0.22	37.50	0.12
7.75	2.76	17.75	0.53	27.75	0.22	37.75	0.12
8.00	2.59	18.00	0.51	28.00	0.21	38.00	0.11
8.25	2.43	18.25	0.50	28.25	0.21	38.25	0.11
8.50	2.29	18.50	0.48	28.50	0.20	38.50	0.11
8.75	2.16	18.75	0.47	28.75	0.20	38.75	0.11
9.00	2.04	19.00	0.46	29.00	0.20	39.00	0.11
9.25	1.94	19.25	0.45	29.25	0.19	39.25	0.11
9.50	1.83	19.50	0.44	29.50	0.19	39.50	0.11
9.75	1.74	19.75	0.42	29.75	0.19	39.75	0.10
10.00	1.66	20.00	0.41	30.00	0.18	40.00	0.10

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 – 100% reflections)

Meters 1 Electric Meter

Time Avg: 90%

% Reflection 100%

Distance where limits are exceeded

FCC ft. 0.50

6.04 Inches

BioInitiative ft. 40.60

487.20 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	0.10	54.25	0.06	68.25	0.04	82.25	0.02
40.50	0.10	54.50	0.06	68.50	0.04	82.50	0.02
40.75	0.10	54.75	0.06	68.75	0.04	82.75	0.02
41.00	0.10	55.00	0.05	69.00	0.03	83.00	0.02
41.25	0.10	55.25	0.05	69.25	0.03	83.25	0.02
41.50	0.10	55.50	0.05	69.50	0.03	83.50	0.02
41.75	0.09	55.75	0.05	69.75	0.03	83.75	0.02
42.00	0.09	56.00	0.05	70.00	0.03	84.00	0.02
42.25	0.09	56.25	0.05	70.25	0.03	84.25	0.02
42.50	0.09	56.50	0.05	70.50	0.03	84.50	0.02
42.75	0.09	56.75	0.05	70.75	0.03	84.75	0.02
43.00	0.09	57.00	0.05	71.00	0.03	85.00	0.02
43.25	0.09	57.25	0.05	71.25	0.03	85.25	0.02
43.50	0.09	57.50	0.05	71.50	0.03	85.50	0.02
43.75	0.09	57.75	0.05	71.75	0.03	85.75	0.02
44.00	0.09	58.00	0.05	72.00	0.03	86.00	0.02
44.25	0.08	58.25	0.05	72.25	0.03	86.25	0.02
44.50	0.08	58.50	0.05	72.50	0.03	86.50	0.02
44.75	0.08	58.75	0.05	72.75	0.03	86.75	0.02
45.00	0.08	59.00	0.05	73.00	0.03	87.00	0.02
45.25	0.08	59.25	0.05	73.25	0.03	87.25	0.02
45.50	0.08	59.50	0.05	73.50	0.03	87.50	0.02
45.75	0.08	59.75	0.05	73.75	0.03	87.75	0.02
46.00	0.08	60.00	0.05	74.00	0.03	88.00	0.02
46.25	0.08	60.25	0.05	74.25	0.03	88.25	0.02
46.50	0.08	60.50	0.05	74.50	0.03	88.50	0.02
46.75	0.08	60.75	0.04	74.75	0.03	88.75	0.02
47.00	0.07	61.00	0.04	75.00	0.03	89.00	0.02
47.25	0.07	61.25	0.04	75.25	0.03	89.25	0.02
47.50	0.07	61.50	0.04	75.50	0.03	89.50	0.02
47.75	0.07	61.75	0.04	75.75	0.03	89.75	0.02
48.00	0.07	62.00	0.04	76.00	0.03	90.00	0.02
48.25	0.07	62.25	0.04	76.25	0.03	90.25	0.02
48.50	0.07	62.50	0.04	76.50	0.03	90.50	0.02
48.75	0.07	62.75	0.04	76.75	0.03	90.75	0.02
49.00	0.07	63.00	0.04	77.00	0.03	91.00	0.02
49.25	0.07	63.25	0.04	77.25	0.03	91.25	0.02
49.50	0.07	63.50	0.04	77.50	0.03	91.50	0.02
49.75	0.07	63.75	0.04	77.75	0.03	91.75	0.02
50.00	0.07	64.00	0.04	78.00	0.03	92.00	0.02
50.25	0.07	64.25	0.04	78.25	0.03	92.25	0.02
50.50	0.06	64.50	0.04	78.50	0.03	92.50	0.02
50.75	0.06	64.75	0.04	78.75	0.03	92.75	0.02
51.00	0.06	65.00	0.04	79.00	0.03	93.00	0.02
51.25	0.06	65.25	0.04	79.25	0.03	93.25	0.02
51.50	0.06	65.50	0.04	79.50	0.03	93.50	0.02
51.75	0.06	65.75	0.04	79.75	0.03	93.75	0.02
52.00	0.06	66.00	0.04	80.00	0.03	94.00	0.02
52.25	0.06	66.25	0.04	80.25	0.03	94.25	0.02
52.50	0.06	66.50	0.04	80.50	0.03	94.50	0.02
52.75	0.06	66.75	0.04	80.75	0.03	94.75	0.02
53.00	0.06	67.00	0.04	81.00	0.03	95.00	0.02
53.25	0.06	67.25	0.04	81.25	0.03	95.25	0.02
53.50	0.06	67.50	0.04	81.50	0.02	95.50	0.02
53.75	0.06	67.75	0.04	81.75	0.02	95.75	0.02
54.00	0.06	68.00	0.04	82.00	0.02	96.00	0.02

Table 2 – 90%