Attachment 2

Within System (lifetime)		
System Water Savings:	5,096.257	MG/$M
System, End-Use & EE/RE Savings:	1,794,300	kWh/$M
System, End-Use & EE/RE GHG Emission Reductions:	498,815	kg CO_2e/$M

Grand Total (lifetime)		
Water Savings:	4,880.000	MG
Energy Savings:	1,718,160	kWh
GHG Emissions Reduction:	477,648	kg CO_2e

System Summary

	Total Project Cost	Water Savings		Energy Savings		GHG Reduction	
		Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Project 1	$ 957,565	244.000 MG/year	4,880.000 MG	244 kWh/year	4,880 kWh	68 kg CO_2e/year	1,357 kg CO_2e
Project 2	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	$ -	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**$ 957,565**	**244.000 MG/year**	**4,880.000 MG**	**244 kWh/year**	**4,880 kWh**	**68 kg CO_2e/year**	**1,357 kg CO_2e**

Imported Water Summary

	Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime
Project 1	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 2	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**0 kWh/year**	**0 kWh**	**0 kg CO_2e/year**	**0 kg CO_2e**

Hot Water Heating System Summary

	Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime
Project 1	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 2	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e

Project 9	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**0 kWh/year**	**0 kWh**	**0 kg CO_2e/year**	**0 kg CO_2e**

Energy Efficiency and Renewable Energy (EE/RE) Summary

	Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime
Project 1	85,664 kWh/year	1,713,280 kWh	23,815 kg CO_2e/year	476,292 kg CO_2e
Project 2	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**85,664 kWh/year**	**1,713,280 kWh**	**23,815 kg CO_2e/year**	**476,292 kg CO_2e**

Total System Summary (System + Water Heating + EE/RE)

	Water Savings		Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Project 1	244.000 MG/year	4,880.000 MG	85,908 kWh/year	1,718,160 kWh	23,882 kg CO_2e/year	477,648 kg CO_2e
Project 2	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**244.000 MG/year**	**4,880.000 MG**	**85,908 kWh/year**	**1,718,160 kWh**	**23,882 kg CO_2e/year**	**477,648 kg CO_2e**

Combined Summary (System + Imports + Water Heating + EE/RE)

	Water Savings		Energy Savings		GHG Reduction	
	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Project 1	244.000 MG/year	4,880.000 MG	85,908 kWh/year	1,718,160 kWh	23,882 kg CO_2e/year	477,648 kg CO_2e
Project 2	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 3	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 4	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 5	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 6	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 7	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 8	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 9	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Project 10	0.000 MG/year	0.000 MG	0 kWh/year	0 kWh	0 kg CO_2e/year	0 kg CO_2e
Total	**244.000 MG/year**	**4,880.000 MG**	**85,908 kWh/year**	**1,718,160 kWh**	**23,882 kg CO_2e/year**	**477,648 kg CO_2e**

Attachment 2

Estimate of Water Savings, Energy Savings, and GHG Emissions Reduction

Project Name: **City of Brentwood - Sensus AMR System Upgrade**
Total Project Cost: **$957,565**

Project Assumptions			
Step 1:	Enter the baseline (pre-project) volume of water associated with the project	**3491**	MG/year
Step 2:	Enter the volume of water that will be delivered after the project is implemented.	**3247**	MG/year
Step 3:	Enter the volume of hot water saved from the project's electric water heating system (the summation of step 3 and step 4 must not exceed annual volume of water savings). If not applicable, enter "0".	**0**	MG/year
Step 4:	Enter the volume of hot water saved from the project's natural gas water heating system (the summation of step 3 and step 4 must not exceed annual volume of water savings). If not applicable, enter "0".	**0**	MG/year
Step 5:	Enter the useful life in years for the project	**20**	years
Step 6:	Enter the percentage of water that is imported	**0%**	
Step 7:	Enter the Energy Intensity (EI) of the System associated with the project's water savings		kWh/MG
Step 8:	Enter the total output emission rate specific to the power supplier or use the default value of 0.278	**0.278**	kg CO_2e/kWh
Step 9:	Enter EI associated with the Supply and Conveyance segment of the imported water or enter "0" if imported water is not applicable	**0**	kWh/MG
Step 10:	Enter any additional annual energy savings from energy efficiency and renewable energy (EE/RE), etc.	**85664**	kWh/year

*****Note: on a separate sheet provide the basis for the estimates and information sources for factors entered*****

Note: values below are determined from the above Project Assumptions		Units
Water Savings		
1) Annual volume of water savings within System	244	MG/year
2) Annual volume of imported water savings	0	MG/year
3) Annual volume of hot water heating system savings	0	MG/year
4) Lifetime volume of water savings within System	4880	MG
5) Lifetime volume of imported water savings	0	MG
6) Lifetime volume of hot water heating system savings	0	MG
Energy Savings		
1) Annual energy savings within System	244	kWh/year
2) Annual energy savings from imported water	0	kWh/year
3) Annual energy savings from electric hot water heating system	0	kWh/year
4) Annual energy savings from natural gas hot water heating system (used to calculate total energy saving)	0	kWh/year
5) Total annual energy savings from electric and natural gas hot water heating systems	0	kWh/year
6) Annual energy savings from natural gas hot water heating system (used to calculate GHG emmission)	0	therms/year
7) Lifetime energy savings within System	4,880	kWh
8) Lifetime energy savings from imported water	0	kWh
9) Lifetime energy savings from electric hot water heating system	0	kWh
10) Lifetime energy savings from natural gas hot water heating system	0	kWh
11) Total lifetime energy savings from electric and natural gas hot water heating systems	0	kWh
12) Lifetime energy savings from natural gas water heating system	0	therms
13) Additional lifetime energy savings from Energy Efficiency and Renewable Energy (EE/RE), etc.	1,713,280	kWh
GHG Emission Reductions		
1) Annual GHG emission reductions within System	68	kg CO_2e/year
2) Annual imported GHG emission reductions	0	kg CO_2e/year
3) Annual GHG emission reductions from electric hot water heating	0	kg CO_2e/year
4) Annual GHG emission reductions from natural gas hot water heating system	0	kg CO_2e/year
5) Total annual GHG reductions from electric and natural gas hot water heating system	0	kg CO_2e/year
6) Lifetime GHG emission reductions within System	1,357	kg CO_2e
7) Lifetime GHG emission reductions from imported water	0	kg CO_2e
8) Lifetime GHG emission reductions from electric heating system	0	kg CO_2e
9) Lifetime GHG emission reductions from natural gas water heating system	0	kg CO_2e
10) Total lifetime GHG emission reductions from electric and natural gas hot water heating systems	0	kg CO_2e
11) Additional annual GHG emission reductions from Energy Efficiency and Renewable Energy (EE/RE), etc.	23,815	kg CO_2e/year
12) Additional lifetime GHG emission reductions from Energy Efficiency and Renewable Energy (EE/RE), etc.	476,292	kg CO_2e
Project Summary		
Total annual water savings	244	MG/year
Total lifetime water savings	4880	MG
Total annual energy savings	85,908	kWh/year
Total lifetime energy savings	1,718,160	kWh
Total annual GHG emission reductions	23,882	kg CO_2e/year
Total lifetime GHG emission reductions	477,648	kg CO_2e