

Hopping Green & Sams

Attorneys and Counselors

Writer's Direct Dial No.
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April 27, 2015

BY E-FILING

Carlotta Stauffer,
Commission Clerk
2540 Shumard Oak Boulevard
Tallahassee, Florida, 32399-0850

Re: Docket No. 150087-EG
JEA's Responses to Staff's First Data Request

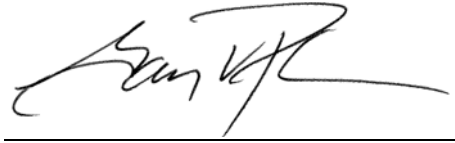
Dear Ms. Stauffer:

Enclosed for filing in the above docket are JEA's Responses to Staff's First Data Request in the above docket. By separate email, I am providing the responses, along with an Excel version of the spreadsheet referenced in the responses, to Ms. Ames for distribution to Commission Staff.

If you have any questions, please give me a call.

Very truly yours,

HOPPING GREEN & SAMS, PA.

By: 

Gary V. Perko

Attorneys for JEA

Enclosures.

cc: Leslie Ames, PSC
Richard Vento, JEA

- 1. Please provide the estimated costs of each program's incentives, administrative & equipment costs, and total costs for the ten-year goals period (nominal and net present value). Also, please provide the percentage of total costs that are used for incentives by program. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response: Please see Tables DR-1a & DR-1b located in tab 1 within attached file "S1DR.xlsx".

- 2. Please provide the estimated costs of each program's administrative & equipment costs, costs for the ten-year goals period (nominal and net present value), broken into the categories detailed in the table below. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response: Please see Tables DR-2a & DR-2b located in tab 2 within attached file "S1DR.xlsx".

- 3. For each program that includes "Outside Services" costs in the Data Request No.2, please detail what those outside services include.**

Response: "Outside Services" includes the costs for third party implementation contractors to assist in the set-up and implementation of the program. This work includes labor, materials, tools, supplies, travel, marketing and other services required to implement the associated DSM program.

- 4. For each program that includes Other costs in the data request above, please detail what those Other costs include.**

Response: The "Other" cost category was not used in JEA's breakdown of costs.

- 5. Please provide the estimated costs of each program's incentive costs, costs for the ten-year goals period (nominal and net present value), broken into the categories detailed in the table below. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response: Please see Tables DR-5a & DR-5b located in tab 5 within attached file "S1DR.xlsx".

- 6. Please provide for each program with demand and energy savings the net present value of the benefits and costs described in the Rate Impact Measure Test and detailed in the table below. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response: Please see Table DR-6 located in tab 6 within attached file "S1DR.xlsx".

7. **Please provide for each program with demand and energy savings the net present value of the benefits and costs described in the Total Resource Cost Test and detailed in the table below. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response: Please see Table DR-7 located in tab 7 within attached file "S1DR.xlsx".

8. **Please provide for each program with demand and energy savings the net present value of the benefits and costs described in the Participants Test and detailed in the table below. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response : Please see Table DR-8 located in tab 8 within attached file "S1DR.xlsx".

9. **Please provide the actual and projected DSM Plan annual funds in nominal dollars for the period 2010 through 2024. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response: Please see Table DR-9 located in tab 9 within attached file "S1DR.xlsx".

10. **Please provide the actual and projected monthly customer bill associated with the DSM Plan for a residential and commercial/industrial customer with the usage described in the table below, in nominal dollars. Please also provide the actual and projected total monthly customer bill, in nominal dollars. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response: Please see Table DR-10 located in tab 10 within attached file "S1DR.xlsx".

11. **For the company's audit programs, please provide a list of measures used to determine energy and demand savings. Please identify each measure and specify whether it is equipment provided by the company and installed by the auditor, equipment provided but installed by the home or business owner, or a behavioral measure savings. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response: Please see Table DR-11 located in tab 11 within attached file "S1DR.xlsx".

- 12. If the company's audit programs include behavioral savings, please describe the empirical basis for asserting such savings (i.e. double blind experiments, transfer of findings from other utilities, engineering guesses) and how they are monitored and verified.**

Response: JEA's audit programs focus on no cost behavioral savings. The audits are offered to customers at no charge and are typically in response to high bill concerns. Please see the embedded spreadsheets located in tab 12 within attached file "S1DR.xlsx".

- 13. Do any of the programs in the company's DSM Plan include savings associated with Compact Fluorescent Lightbulbs? If so, please identify the baseline used.**

Response: JEA does include Compact Fluorescent Lightbulbs in the Neighborhood Efficiency Program. The savings are based on replacement of halogen bulbs.

- 14. Please identify each program in the company's DSM Plan that include measures with an estimated 2 year or less payback period, and which measures are included by program.**

Response: The audit programs (residential and commercial) and the Neighborhood Efficiency Program (low income) are the only programs that yield a customer payback of less than 2 years because the participant does not incur any direct cost.

- 15. For each program that includes measures with an estimated 2 year or less payback period, please provide the amount of savings (kWh, Win kW, and Sum kW) associated with these measures for each program and for the entire DSM Plan. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response: Please see Table DR-15 located in tab 15 within attached file "S1DR.xlsx".

- 16. Please describe the avoided unit used in the company's cost-effectiveness evaluations of the programs in its DSM Plan. Is the avoided unit the same as the one used in the goal setting docket? If not, please explain why and the differences in avoided costs resulting from the change.**

Response: All avoided capacity additions were modeled as simple cycle combustion turbines. Avoided capacity additions were projected to occur in the years 2036, 2038, 2040, and 2043. This scenario is unchanged from the goal setting docket.

- 17. Please discuss whether any measure's demand and energy savings used in the company's cost-effectiveness evaluations of the programs in its DSM Plan differed from the one used in the goal setting docket. If so, please explain why and the differences in demand and energy savings resulting from the change.**

Response: JEA used territory specific data for its deemed savings values in the solar water heating program. The state study did not differentiate between active and passive systems which can have very different impacts especially on Winter Peak Demand. For more information please see tab 17 in attached file "S1DR.xls".

- 18. Please provide the annual avoided cost savings associated with each of the following four scenarios for a measure that reduces energy or demand by: 1000 kWh, 1 kW Summer Demand, 1 kW Winter Demand or 1 kW Summer and Winter Demand. Please provide the savings through the longest time period used to evaluate the programs in your DSM Plan. As part of this response, please provide an electronic version of the table below in Excel format with your response.**

Response: Please see Table DR-18 located in tab 18 within attached file "S1DR.xlsx".

- 19. Please discuss the methodology used to estimate expected participation for each program proposed by your company.**

Response: JEA's participation is primarily based on the average of past years with adjustments for current trends and expected funds.

- 20. Please compare the projected participation rates of continuing programs with the actual participation rates for the previous ten years (or less, depending upon the start date of the program).**

Response: Projected participation rates are based on historical actual participation rates for corresponding programs.

- 21. Please describe how JEA advertises its residential energy audit, business energy audit, and neighborhood efficiency programs.**

Response: The Energy Assessment programs for residential and commercial customers are advertised through the JEA web site, bill inserts, the Customer Care Center, social media and word of mouth. The Neighborhood Energy Efficiency program is not widely advertised because it is available only to neighborhoods identified by the U.S. Census Bureau where 50% or more of the residents are at or below 150% of the Federal Poverty Guidelines. Once a neighborhood is

identified, every resident is mailed a postcard advising them that the program is available within their neighborhood. The program goes door-to-door to serve every resident in the neighborhood.

22. Please describe JEA's efforts to ensure that it obtains the maximum participation in its residential energy audit, business energy audit, and neighborhood efficiency programs.

Response: JEA provides approximately 4,500 electric residential assessments per year and over 400 commercial assessments. In addition, some 13,000 customers take advantage of the on-line energy assessment product through our Utility Tracker (online) each year. Any customer wishing an assessment will be scheduled as quickly as possible. The Neighborhood Energy Efficiency Program serves 1,500 homes each year. This is the maximum amount that can be served with the budget provided. In addition, JEA partners with Northeast Florida Community Action Agency (NEFCAA) and several community development corporations to further leverage funding for eligible low income homes.

23. JEA states that it plans to reach a 10.1% cumulative penetration level in its residential energy audit program by 2024. In contrast, JEA estimates a 3.7% cumulative penetration level for its commercial energy audit program.

- a. Please explain how JEA estimates the expected annual participation and expected cumulative penetration levels for these two audit programs.
- b. Please explain why JEA expects lower participation in its commercial audit program compared to its residential audit program.

Response: Participation and expected cumulative penetration levels are estimated based on historical trends. As stated previously JEA's audit programs are typically in response to high bill concerns and participation is primarily estimated based on historical trends.

24. JEA's Residential Energy Audit and Commercial Energy Audit Programs are described as involving behavioral advice but no energy conservation products.

- a. Does JEA provide any conservation products, such as light bulbs or low flow shower heads, to its residential or commercial customers during an energy audit? If so, please describe.
- b. Please describe how JEA estimated the demand and energy savings for these two audit programs? In particular, how did JEA estimate the demand and energy savings that would result from customer behavioral changes?

Response:

- a.) JEA does not provide any products, such as light bulbs or low flow shower heads, to its residential or commercial customers during an energy audit?
- b.) Please see response to Data Requests 11 & 12.

25. **JEA includes residential net metering and commercial net metering as two of its six DSM programs. Combined, residential and commercial net metering are projected to contribute 0.643 GWh of energy savings, equal to 20.6% of the 3.11 annual planned GWh savings.**
- a. **Please discuss how JEA estimated the demand and energy savings associated with its net metering programs.**
 - b. **On pages III-14 and IV-7, JEA states that “Currently, an aggregate JEA system load limit of 10 MW is in place for Tier – 1 net metering.” Are the net metering savings JEA estimates for years 2015 – 2024 associated with these existing net metering customers, or with new net metering customers? Please explain.**
 - c. **Please discuss why JEA believes it is appropriate to include the demand and energy savings it attributes to these net metering programs toward JEA’s DSM goals.**

Response: The net metering program is a DSM program used to help modify customer load shapes just like any other DSM program. The utility incurs expense through special net-metering equipment, billing, rates, education and other customer services specific to these customers who own this measure.

- a.) JEA estimated the demand and energy savings associated with its net metering programs based on local published data from NREL and from data captured by local solar assets owned by JEA.
- b.) The net metering savings are based on new customers.
- c.) JEA included the demand and energy savings attributed to the commercial and residential net metering programs toward JEA’s DSM goals because they are among the core programs considered by the Commission when it established JEA’s DSM goals. *See* discussion of Issues 8 and 9 in Attachment “A” to Order No. PSC-14-0696-FOF-EU issued on Dec. 16, 2014.

Table DR-1a

Program Costs (Nominal)				
Program Name	Incentives	Administrative & Equipment	Total	Percent Incentives
Residential Energy Audits	\$ -	\$ 4,625,800	\$ 4,625,800	0%
Residential Solar Water Heating	\$ 160,000	\$ 66,000	\$ 226,000	71%
Residential Net Metering	\$ -	\$ 3,653,500	\$ 3,653,500	0%
Neighborhood Efficiency Program	\$ -	\$ 4,950,000	\$ 4,950,000	0%
Residential Subtotal	\$ 160,000	\$ 13,295,300	\$ 13,455,300	1%
Commercial Energy Audits	\$ -	\$ 440,000	\$ 440,000	0%
Commercial Net Metering	\$ -	\$ 2,610,600	\$ 2,610,600	0%
Comm/Ind. Subtotal	\$ -	\$ 3,050,600	\$ 3,050,600	0%
Common Expenses	see note 1	see note 1	see note 1	see note 1
Total	\$ 160,000	\$ 16,345,900	\$ 16,505,900	1%

Note 1: All expenses are appropriated to each individual program

Table DR-1b

Program Costs (NPV)				
Program Name	Incentives	Administrative & Equipment	Total	Percent Incentives
Residential Energy Audits	\$ -	\$ 3,750,500	\$ 3,750,500	0%
Residential Solar Water Heating	\$ 129,700	\$ 53,500	\$ 183,200	71%
Residential Net Metering	\$ -	\$ 2,006,900	\$ 2,006,900	0%
Neighborhood Efficiency Program	\$ -	\$ 4,013,400	\$ 4,013,400	0%
Residential Subtotal	\$ 129,700	\$ 9,824,300	\$ 9,954,000	1%
Commercial Energy Audits	\$ -	\$ 356,700	\$ 356,700	0%
Commercial Net Metering	\$ -	\$ 1,422,000	\$ 1,422,000	0%
Comm/Ind. Subtotal	\$ -	\$ 1,778,700	\$ 1,778,700	0%
Common Expenses	see note 1	see note 1	see note 1	see note 1
Total	\$ 129,700	\$ 11,603,000	\$ 11,732,700	1%

Note 1: All expenses are appropriated to each individual program

Table DR-2a

Program Administrative & Equipment Costs (Nominal)									
Program Name	Depreciation & Return	Payroll & Benefits	Materials & Supplies	Outside Services	Advertising	Vehicles & Travel	Other	Revenues (if any)	Total
Residential Energy Audits	\$ -	\$ 4,625,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,625,800
Residential Solar Water Heating	\$ -	\$ 6,000	\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ 66,000
Residential Net Metering	\$ -	\$ 3,653,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,653,500
Neighborhood Efficiency Program	\$ -	\$ 450,000	\$ -	\$ 4,500,000	\$ -	\$ -	\$ -	\$ -	\$ 4,950,000
Residential Subtotal	\$ -	\$ 8,735,300	\$ -	\$ 4,560,000	\$ -	\$ -	\$ -	\$ -	\$ 13,295,300
Commercial Energy Audits	\$ -	\$ 440,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 440,000
Commercial Net Metering	\$ -	\$ 2,610,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,610,600
Comm/Ind. Subtotal	\$ -	\$ 3,050,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,050,600
Common Expenses	see note 1	see note 1	see note 1	see note 1	see note 1	see note 1	see note 1	see note 1	see note 1
Total	\$ -	\$ 11,785,900	\$ -	\$ 4,560,000	\$ -	\$ -	\$ -	\$ -	\$ 16,345,900

Note 1: All expenses are appropriated to each individual program

1,634,590

Table DR-2b

Program Administrative & Equipment Costs (NPV)									
Program Name	Depreciation & Return	Payroll & Benefits	Materials & Supplies	Outside Services	Advertising	Vehicles & Travel	Other	Revenues (if any)	Total
Residential Energy Audits	\$ -	\$ 3,750,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,750,500
Residential Solar Water Heating	\$ -	\$ 4,850	\$ -	\$ 48,650	\$ -	\$ -	\$ -	\$ -	\$ 53,500
Residential Net Metering	\$ -	\$ 2,006,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,006,900
Neighborhood Efficiency Program	\$ -	\$ 364,850	\$ -	\$ 3,648,550	\$ -	\$ -	\$ -	\$ -	\$ 4,013,400
Residential Subtotal	\$ -	\$ 6,127,100	\$ -	\$ 3,697,200	\$ -	\$ -	\$ -	\$ -	\$ 9,824,300
Commercial Energy Audits	\$ -	\$ 356,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 356,700
Commercial Net Metering	\$ -	\$ 1,422,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,422,000
Comm/Ind. Subtotal	\$ -	\$ 1,778,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,778,700
Common Expenses	see note 1	see note 1	see note 1	see note 1	see note 1	see note 1	see note 1	see note 1	see note 1
Total	\$ -	\$ 7,905,800	\$ -	\$ 3,697,200	\$ -	\$ -	\$ -	\$ -	\$ 11,603,000

Note 1: All expenses are appropriated to each individual program

Table DR-5a

Program Incentives (Nominal)			
Program Name	Incentives (Non-Recurring)	Incentives (Recurring)	Total
Residential Energy Audits	\$ -	\$ -	\$ -
Residential Solar Water Heating	\$ 160,000	\$ -	\$ 160,000
Residential Net Metering	\$ -	\$ -	\$ -
Neighborhood Efficiency Program	\$ -	\$ -	\$ -
Residential Subtotal	\$ 160,000	\$ -	\$ 160,000
Commercial Energy Audits	\$ -	\$ -	\$ -
Commercial Net Metering	\$ -	\$ -	\$ -
Comm/Ind. Subtotal	\$ -	\$ -	\$ -
Common Expenses	see note 1	see note 1	see note 1
Total	\$ 160,000	\$ -	\$ 160,000

Note 1: All expenses are appropriated to each individual program

0

Table DR-5b

Program Incentives (NPV)			
Program Name	Incentives (Non-Recurring)	Incentives (Recurring)	Total
Residential Energy Audits	\$ -	\$ -	\$ -
Residential Solar Water Heating	\$ 129,700	\$ -	\$ 129,700
Residential Net Metering	\$ -	\$ -	\$ -
Neighborhood Efficiency Program	\$ -	\$ -	\$ -
Residential Subtotal	\$ 129,700	\$ -	\$ 129,700
Commercial Energy Audits	\$ -	\$ -	\$ -
Commercial Net Metering	\$ -	\$ -	\$ -
Comm/Ind. Subtotal	\$ -	\$ -	\$ -
Common Expenses	see note 1	see note 1	see note 1
Total	\$ 129,700	\$ -	\$ 129,700

Note 1: All expenses are appropriated to each individual program

Table DR-6 (RIM Test)

Program Name	Benefits					Costs					Net Benefit
	Gen	T&D	Fuel	Other	Total	Utility	Incentives	Lost Revenues	Other	Total	
Residential Energy Audits	\$ -	\$ -	\$ 4,081,000	\$ -	\$ 4,081,000	\$ 3,750,000	\$ -	\$ 5,173,000	\$ -	\$ 8,923,000	\$ (4,842,000)
Residential Solar Water Heating	\$ -	\$ -	\$ 306,300	\$ -	\$ 306,300	\$ 53,500	\$ 129,700	\$ 358,700	\$ -	\$ 541,900	\$ (235,600)
Residential Net Metering	\$ -	\$ -	\$ 2,754,000	\$ -	\$ 2,754,000	\$ 2,006,900	\$ -	\$ 3,007,400	\$ -	\$ 5,014,300	\$ (2,260,300)
Neighborhood Efficiency Program	\$ -	\$ -	\$ 5,835,300	\$ -	\$ 5,835,300	\$ 4,013,400	\$ -	\$ 7,395,800	\$ -	\$ 11,409,200	\$ (5,573,900)
Residential Subtotal	\$ -	\$ -	\$ 12,976,600	\$ -	\$ 12,976,600	\$ 9,823,800	\$ 129,700	\$ 15,934,900	\$ -	\$ 25,888,400	\$ (12,911,800)
Commercial Energy Audits	\$ -	\$ -	\$ 537,100	\$ -	\$ 537,100	\$ 356,700	\$ -	\$ 380,800	\$ -	\$ 737,500	\$ (200,400)
Commercial Net Metering	\$ -	\$ -	\$ 2,920,700	\$ -	\$ 2,920,700	\$ 1,422,000	\$ -	\$ 1,784,700	\$ -	\$ 3,206,700	\$ (286,000)
Comm/Ind. Subtotal	\$ -	\$ -	\$ 3,457,800	\$ -	\$ 3,457,800	\$ 1,778,700	\$ -	\$ 2,165,500	\$ -	\$ 3,944,200	\$ (486,400)
Total	\$ -	\$ -	\$ 16,434,400	\$ -	\$ 16,434,400	\$ 11,602,500	\$ 129,700	\$ 18,100,400	\$ -	\$ 29,832,600	\$ (13,398,200)

Table DR-7 (TRC Test)

Program Name	Benefits					Costs				Net Benefit
	Gen	T&D	Fuel	Other	Total	Utility	Participant	Other	Total	
Residential Energy Audits	\$ -	\$ -	\$ 4,081,000	\$ -	\$ 4,081,000	\$ 3,750,000	\$ 32,600	\$ -	\$ 3,782,600	\$ 298,400
Residential Solar Water Heating	\$ -	\$ -	\$ 306,000	\$ -	\$ 306,000	\$ 53,500	\$ 558,000	\$ -	\$ 611,500	\$ (305,500)
Residential Net Metering	\$ -	\$ -	\$ 2,754,000	\$ -	\$ 2,754,000	\$ 2,006,900	\$ 6,967,500	\$ -	\$ 8,974,400	\$ (6,220,400)
Neighborhood Efficiency Program	\$ -	\$ -	\$ 5,835,300	\$ -	\$ 5,835,300	\$ 4,013,400	\$ 10,900	\$ -	\$ 4,024,300	\$ 1,811,000
Residential Subtotal	\$ -	\$ -	\$ 12,976,300	\$ -	\$ 12,976,300	\$ 9,823,800	\$ 7,569,000	\$ -	\$ 17,392,800	\$ (4,416,500)
Commercial Energy Audits	\$ -	\$ -	\$ 537,100	\$ -	\$ 537,100	\$ 356,700	\$ 1,400	\$ -	\$ 358,100	\$ 179,000
Commercial Net Metering	\$ -	\$ -	\$ 2,920,700	\$ -	\$ 2,920,700	\$ 1,422,000	\$ 6,736,700	\$ -	\$ 8,158,700	\$ (5,238,000)
Comm/Ind. Subtotal	\$ -	\$ -	\$ 3,457,800	\$ -	\$ 3,457,800	\$ 1,778,700	\$ 6,738,100	\$ -	\$ 8,516,800	\$ (5,059,000)
Total	\$ -	\$ -	\$ 16,434,100	\$ -	\$ 16,434,100	\$ 11,602,500	\$ 14,307,100	\$ -	\$ 25,909,600	\$ (9,475,500)

Table DR-8 (Participant Test)

Program Name	Benefits					Costs				Net Benefit
	Bill Savings	Tax Credits	Incentive	Other	Total	Equipment ¹	O&M	Other	Total	
Residential Energy Audits	\$ 5,230,200	\$ -	\$ -	\$ -	\$ 5,230,200	\$ 32,600	\$ -	\$ -	\$ 32,600	\$ 5,197,600
Residential Solar Water Heating	\$ 344,200	\$ 44,500	\$ 116,000	\$ -	\$ 504,700	\$ 558,000	\$ -	\$ -	\$ 558,000	\$ (53,300)
Residential Net Metering	\$ 2,770,800	\$ 555,500	\$ -	\$ -	\$ 3,326,300	\$ 6,967,500	\$ -	\$ -	\$ 6,967,500	\$ (3,641,200)
Neighborhood Efficiency Program	\$ 7,477,800	\$ -	\$ -	\$ -	\$ 7,477,800	\$ 10,900	\$ -	\$ -	\$ 10,900	\$ 7,466,900
Residential Subtotal	\$ 15,823,000	\$ 600,000	\$ 116,000	\$ -	\$ 16,539,000	\$ 7,569,000	\$ -	\$ -	\$ 7,569,000	\$ 8,970,000
Commercial Energy Audits	\$ 441,100	\$ -	\$ -	\$ -	\$ 441,100	\$ 1,400	\$ -	\$ -	\$ 1,400	\$ (442,500)
Commercial Net Metering	\$ 1,883,600	\$ 537,100	\$ -	\$ -	\$ 2,420,700	\$ 6,736,700	\$ -	\$ -	\$ 6,736,700	\$ (9,157,400)
Comm/Ind. Subtotal	\$ 2,324,700	\$ 537,100	\$ -	\$ -	\$ 2,861,800	\$ 6,738,100	\$ -	\$ -	\$ 6,738,100	\$ (3,876,300)
Total	\$ 18,147,700	\$ 1,137,100	\$ 116,000	\$ -	\$ 19,400,800	\$ 14,307,100	\$ -	\$ -	\$ 14,307,100	\$ 5,093,700

Note 1. An equipment cost of \$1 per participant was used as a placeholder for both audit programs and the neighborhood efficiency program to prevent division by zero in the denominator of the B/C test but the program was performed at no cost to the participant.

Table DR-9

Year	DSM Plan Expenditures
2010*	\$ 3,446,304
2011	\$ 4,075,864
2012	\$ 3,846,666
2013	\$ 3,884,898
2014	\$ 2,847,277
2015	\$ 1,538,000
2016	\$ 1,561,000
2017	\$ 1,584,000
2018	\$ 1,608,000
2019	\$ 1,632,000
2020	\$ 1,657,000
2021	\$ 1,682,000
2022	\$ 1,707,000
2023	\$ 1,733,000
2024	\$ 1,759,000

Table DR-10

Year	Residential Customer 1,200 kWh/mo		Commercial/Industrial Customer 400,000 kWh/mo & 1,000 kW Peak	
	DSM Plan Portion (\$)	Total Bill (\$)	DSM Plan Portion (\$)	Total Bill (\$)
2010	\$0.31	\$144.12	\$104.43	\$42,391.00
2011	\$0.37	\$144.12	\$123.51	\$42,391.00
2012	\$0.35	\$139.15	\$116.57	\$39,593.00
2013	\$0.35	\$139.15	\$117.72	\$39,593.00
2014	\$0.26	\$139.15	\$86.28	\$39,593.00
2015	\$0.14	\$139.15	\$46.61	\$39,593.00
2016	\$0.14	\$139.15	\$47.30	\$39,593.00
2017	\$0.14	\$139.15	\$48.00	\$39,593.00
2018	\$0.15	\$139.15	\$48.73	\$39,593.00
2019	\$0.15	\$139.15	\$49.45	\$39,593.00
2020	\$0.15	\$139.15	\$50.21	\$39,593.00
2021	\$0.15	\$139.15	\$50.97	\$39,593.00
2022	\$0.16	\$139.15	\$51.73	\$39,593.00
2023	\$0.16	\$139.15	\$52.52	\$39,593.00
2024	\$0.16	\$139.15	\$53.30	\$39,593.00

Note: Gross Receipts and Other Applicable Charges are not included, DSM Plan Costs are for implementation only

Table DR-11a

Residential Energy Audit Education						
Year	Audit Measure Savings (Savings @ Generator)					
	Per Customer			Total Annual		
	kWh Reduction	Winter kW Reduction	Summer kW Reduction	kWh Reduction	Winter kW Reduction	Summer kW Reduction
2015	208	0.105	0.106	936,900	470.3	474.8
2016	208	0.105	0.106	936,900	470.3	474.8
2017	208	0.105	0.106	936,900	470.3	474.8
2018	208	0.105	0.106	936,900	470.3	474.8
2019	208	0.105	0.106	936,900	470.3	474.8
2020	208	0.105	0.106	936,900	470.3	474.8
2021	208	0.105	0.106	936,900	470.3	474.8
2022	208	0.105	0.106	936,900	470.3	474.8
2023	208	0.105	0.106	936,900	470.3	474.8
2024	208	0.105	0.106	936,900	470.3	474.8

Table DR-11b

Commercial Energy Audit Education						
Year	Audit Measure Savings (Savings @ Generator)					
	Per Customer			Total Annual		
	kWh Reduction	Winter kW Reduction	Summer kW Reduction	kWh Reduction	Winter kW Reduction	Summer kW Reduction
2015	562	0.125	0.127	112,428	25.1	25.3
2016	562	0.125	0.127	112,428	25.1	25.3
2017	562	0.125	0.127	112,428	25.1	25.3
2018	562	0.125	0.127	112,428	25.1	25.3
2019	562	0.125	0.127	112,428	25.1	25.3
2020	562	0.125	0.127	112,428	25.1	25.3
2021	562	0.125	0.127	112,428	25.1	25.3
2022	562	0.125	0.127	112,428	25.1	25.3
2023	562	0.125	0.127	112,428	25.1	25.3
2024	562	0.125	0.127	112,428	25.1	25.3



RES Audit
Calcs.xlsx



COM Audit
Calcs.xlsx

Table DR-15a

Residential Energy Audit Education						
Year	Program Savings from 2-Year Payback Measures (Savings @ Generator)					
	Per Customer			Total Annual		
	kWh Reduction	Winter kW Reduction	Summer Kw Reduction	kWh Reduction	Winter kW Reduction	Summer Kw Reduction
2015	208	0.105	0.106	936,900	470.3	474.8
2016	208	0.105	0.106	936,900	470.3	474.8
2017	208	0.105	0.106	936,900	470.3	474.8
2018	208	0.105	0.106	936,900	470.3	474.8
2019	208	0.105	0.106	936,900	470.3	474.8
2020	208	0.105	0.106	936,900	470.3	474.8
2021	208	0.105	0.106	936,900	470.3	474.8
2022	208	0.105	0.106	936,900	470.3	474.8
2023	208	0.105	0.106	936,900	470.3	474.8
2024	208	0.105	0.106	936,900	470.3	474.8

Table DR-15b

Commercial Energy Audit Education						
Year	Program Savings from 2-Year Payback Measures (Savings @ Generator)					
	Per Customer			Total Annual		
	kWh Reduction	Winter kW Reduction	Summer Kw Reduction	kWh Reduction	Winter kW Reduction	Summer Kw Reduction
2015	562	0.125	0.127	112,428	25.1	25.3
2016	562	0.125	0.127	112,428	25.1	25.3
2017	562	0.125	0.127	112,428	25.1	25.3
2018	562	0.125	0.127	112,428	25.1	25.3
2019	562	0.125	0.127	112,428	25.1	25.3
2020	562	0.125	0.127	112,428	25.1	25.3
2021	562	0.125	0.127	112,428	25.1	25.3
2022	562	0.125	0.127	112,428	25.1	25.3
2023	562	0.125	0.127	112,428	25.1	25.3
2024	562	0.125	0.127	112,428	25.1	25.3

Table DR-15c

Neighborhood Energy Efficiency Program						
Year	Program Savings from 2-Year Payback Measures (Savings @ Generator)					
	Per Customer			Total Annual		
	kWh Reduction	Winter kW Reduction	Summer Kw Reduction	kWh Reduction	Winter kW Reduction	Summer Kw Reduction
2015	893	0.369	0.373	1,339,311	553.6	558.9
2016	893	0.369	0.373	1,339,311	553.6	558.9
2017	893	0.369	0.373	1,339,311	553.6	558.9
2018	893	0.369	0.373	1,339,311	553.6	558.9
2019	893	0.369	0.373	1,339,311	553.6	558.9
2020	893	0.369	0.373	1,339,311	553.6	558.9
2021	893	0.369	0.373	1,339,311	553.6	558.9
2022	893	0.369	0.373	1,339,311	553.6	558.9
2023	893	0.369	0.373	1,339,311	553.6	558.9
2024	893	0.369	0.373	1,339,311	553.6	558.9



RES SOLAR HOT
H2O CALCS.xlsx

Table DR-18

Year	Savings by Measure Type							
	1000 kWh		1 kW Summer		1 kW Winter		1 kW Sum & Win	
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
2015	\$ 36.89	\$ 36.89	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 37.69	\$ 35.90	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 42.39	\$ 38.45	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 45.27	\$ 39.11	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 45.50	\$ 37.43	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020	\$ 40.96	\$ 32.09	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2021	\$ 38.66	\$ 28.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2022	\$ 38.60	\$ 27.43	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2023	\$ 39.49	\$ 26.73	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2024	\$ 43.07	\$ 27.76	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -