

Program Name: Business Energy Evaluation



Florida Power & Light Company, 215 S. Monroe St., Suite 810, Tallahassee, FL 32301

Jessica Cano
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July 1, 2010

100155-EG

VIA HAND DELIVERY

Ms. Ann Cole
Division of the Commission Clerk and
Administrative Services
Florida Public Service Commission
Betty Easley Conference Center
2540 Shumard Oak Boulevard, Room 110
Tallahassee, FL 32399-0850

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10 JUL - 1 PM 2:22
COMMISSION
CLERK

Re: Petition for Approval of Florida Power & Light Company's Demand Side Management Plan – Revised Responses to Staff's First Set of Data Requests

Dear Ms. Cole:

Enclosed for filing on behalf of Florida Power & Light Company ("FPL") are an original and 5 copies of FPL's revised responses to Staff's First Set of Data Requests, Nos. 1-9 and 18, along with a compact disc containing the same. These responses were revised as a result of the corrections made in FPL's Revised DSM Plan, filed under separate cover on this date.

Please contact me should you or your staff have any questions regarding this filing.

Sincerely,

Jessica R. Adams
for Jessica Cano

COM ___
APA ___
ECR ___
GCL TTED
RAD A+5cds
SSC ___
ADM ___

Enclosures
CC: Katherine Fleming
Vicki Kaufman
George Cavros
Susanne Brownless

Program Name: Residential Low Income Weatherization

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	693,875	1,000	0%
2011	4,056,428	700,762	1,000	0%
2012	4,141,910	714,550	1,000	0%
2013	4,226,978	728,267	1,000	1%
2014	4,311,223	741,842	1,000	1%
2015	4,394,802	755,301	1,000	1%
2016	4,477,937	768,683	1,000	1%
2017	4,560,569	781,978	1,000	1%
2018	4,642,575	795,166	1,000	1%
2019	4,720,827	807,703	1,000	1%

Notes: Column a - The total number of customers in residential rate class

Column b - The total number of residential customers eligible for one or more applicable program measures

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	734	0.00	0.35	734,167	2	346
2011	734	0.00	0.35	734,167	2	346
2012	734	0.00	0.35	734,167	2	346
2013	734	0.00	0.35	734,167	2	346
2014	734	0.00	0.35	734,167	2	346
2015	734	0.00	0.35	734,167	2	346
2016	734	0.00	0.35	734,167	2	346
2017	734	0.00	0.35	734,167	2	346
2018	734	0.00	0.35	734,167	2	346
2019	734	0.00	0.35	734,167	2	346

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	789	0.00	0.38	788,588	2	378
2011	789	0.00	0.38	788,588	2	378
2012	789	0.00	0.38	788,588	2	378
2013	789	0.00	0.38	788,588	2	378
2014	789	0.00	0.38	788,588	2	378
2015	789	0.00	0.38	788,588	2	378
2016	789	0.00	0.38	788,588	2	378
2017	789	0.00	0.38	788,588	2	378
2018	789	0.00	0.38	788,588	2	378
2019	789	0.00	0.38	788,588	2	378

DOCUMENT RELEASED

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PPSC-COMMUNICATIONS

Q.

Please provide, on an individual program basis, the following tables and forms included in the Company's petition. Please provide an electronic copy in Excel (.xls file format).

- a. Program Participation Values
- b. Program & Individual Measure Savings @ the Meter
- c. Program & Individual Measure Savings @ the Generator
- d. PSC Form CE 1.1 (Financial Assumptions)
- e. PSC Form CE 2.3 (Total Resource Cost Test)
- f. PSC Form CE 2.4 (Participant Costs and Benefits)
- g. PSC Form CE 2.5 (Rate Impact Measure Test)

A.

a.-c. FPL interprets these Data Requests to be requesting the electronic copies of the information provided in the tables included in Section VII of its Demand-Side Management Plan. Please see the attached file named Staff Table 1 Parts a-c - Revised.

d-g. Responses to d - g are attached.

Program Name: Residential Power Savers Energy Audit

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	693,875	0	0%
2011	4,056,428	701,762	15,000	2%
2012	4,141,910	701,550	15,000	4%
2013	4,226,978	701,267	15,000	6%
2014	4,311,223	700,842	15,000	9%
2015	4,394,802	700,301	15,000	11%
2016	4,477,937	699,683	15,000	13%
2017	4,560,569	698,978	15,000	15%
2018	4,642,575	698,166	15,000	17%
2019	4,720,827	696,703	15,000	19%

Notes: Column a - The total number of customers in residential rate class

Column b - The total number of residential customers eligible for one or more applicable program measures

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	0	0.00	0.00	0	0	0
2011	459	0.08	0.03	6,888,313	1,178	512
2012	459	0.08	0.03	6,888,313	1,178	512
2013	459	0.08	0.03	6,888,313	1,178	512
2014	459	0.08	0.03	6,888,313	1,178	512
2015	459	0.08	0.03	6,888,313	1,178	512
2016	459	0.08	0.03	6,888,313	1,178	512
2017	459	0.08	0.03	6,888,313	1,178	512
2018	459	0.08	0.03	6,888,313	1,178	512
2019	459	0.08	0.03	6,888,313	1,178	512

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	0	0.00	0.00	0	0	0
2011	493	0.09	0.04	7,398,912	1,290	561
2012	493	0.09	0.04	7,398,912	1,290	561
2013	493	0.09	0.04	7,398,912	1,290	561
2014	493	0.09	0.04	7,398,912	1,290	561
2015	493	0.09	0.04	7,398,912	1,290	561
2016	493	0.09	0.04	7,398,912	1,290	561
2017	493	0.09	0.04	7,398,912	1,290	561
2018	493	0.09	0.04	7,398,912	1,290	561
2019	493	0.09	0.04	7,398,912	1,290	561

Program Name: Residential Power Savers Energy Efficiency

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	693,875	0	0%
2011	4,056,428	701,762	5,000	1%
2012	4,141,910	711,550	5,000	1%
2013	4,226,978	721,267	5,000	2%
2014	4,311,223	730,842	5,000	3%
2015	4,394,802	740,301	5,000	3%
2016	4,477,937	749,683	5,000	4%
2017	4,560,569	758,978	5,000	5%
2018	4,642,575	768,166	5,000	5%
2019	4,720,827	776,703	5,000	6%

Notes: Column a - The total number of customers in residential rate class

Column b - The total number of residential customers eligible for one or more applicable program measures

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	0	0.00	0.00	0	0	0
2011	1,479	0.56	0.63	7,393,295	2,820	3,136
2012	1,479	0.56	0.63	7,393,295	2,820	3,136
2013	1,479	0.56	0.63	7,393,295	2,820	3,136
2014	1,479	0.56	0.63	7,393,295	2,820	3,136
2015	1,479	0.56	0.63	7,393,295	2,820	3,136
2016	1,479	0.56	0.63	7,393,295	2,820	3,136
2017	1,479	0.56	0.63	7,393,295	2,820	3,136
2018	1,479	0.56	0.63	7,393,295	2,820	3,136
2019	1,479	0.56	0.63	7,393,295	2,820	3,136

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	0	0.00	0.00	0	0	0
2011	1,588	0.62	0.69	7,941,326	3,087	3,433
2012	1,588	0.62	0.69	7,941,326	3,087	3,433
2013	1,588	0.62	0.69	7,941,326	3,087	3,433
2014	1,588	0.62	0.69	7,941,326	3,087	3,433
2015	1,588	0.62	0.69	7,941,326	3,087	3,433
2016	1,588	0.62	0.69	7,941,326	3,087	3,433
2017	1,588	0.62	0.69	7,941,326	3,087	3,433
2018	1,588	0.62	0.69	7,941,326	3,087	3,433
2019	1,588	0.62	0.69	7,941,326	3,087	3,433

Program Name: Residential Solar Water Heating

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	4,010,837	1,366	0%
2011	4,056,428	4,055,061	4,588	0%
2012	4,141,910	4,135,955	4,882	0%
2013	4,226,978	4,216,141	4,974	0%
2014	4,311,223	4,295,412	4,970	0%
2015	4,394,802	4,374,021	0	0%
2016	4,477,937	4,457,157	0	0%
2017	4,560,569	4,539,788	0	0%
2018	4,642,575	4,621,795	0	0%
2019	4,720,827	4,700,047	0	0%

Notes: Column a - The total number of customers in residential rate class.

Column b - The total number of eligible customers in residential rate class.

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	1,482	0.45	0.22	2,024,835	615	301
2011	1,482	0.45	0.22	6,799,875	2,065	1,009
2012	1,482	0.45	0.22	7,235,124	2,197	1,074
2013	1,482	0.45	0.22	7,371,468	2,238	1,094
2014	1,482	0.45	0.22	7,365,540	2,237	1,093
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	1,592	0.49	0.24	2,174,926	673	329
2011	1,592	0.49	0.24	7,303,918	2,261	1,105
2012	1,592	0.49	0.24	7,771,430	2,405	1,176
2013	1,592	0.49	0.24	7,917,881	2,451	1,198
2014	1,592	0.49	0.24	7,911,514	2,449	1,197
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

Program Name: Residential Solar Water Heating (Low Income New Construction)

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	404	20	5%
2011	4,056,428	404	200	50%
2012	4,141,910	404	200	50%
2013	4,226,978	404	200	50%
2014	4,311,223	404	200	50%
2015	4,394,802	404	0	0%
2016	4,477,937	404	0	0%
2017	4,560,569	404	0	0%
2018	4,642,575	404	0	0%
2019	4,720,827	404	0	0%

Notes: Column a - The total number of customers in residential rate class.

Column b - The projected annual number of program-eligible new homes

Column d - Column c / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	1,482	0.45	0.22	29,640	9	4
2011	1,482	0.45	0.22	296,400	90	44
2012	1,482	0.45	0.22	296,400	90	44
2013	1,482	0.45	0.22	296,400	90	44
2014	1,482	0.45	0.22	296,400	90	44
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	1,592	0.49	0.24	31,837	10	5
2011	1,592	0.49	0.24	318,371	99	48
2012	1,592	0.49	0.24	318,371	99	48
2013	1,592	0.49	0.24	318,371	99	48
2014	1,592	0.49	0.24	318,371	99	48
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

Program Name: Business Solar Water Heating

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	534,490	534,490	11	0%
2011	547,697	547,685	43	0%
2012	561,576	561,522	52	0%
2013	575,598	575,492	63	0%
2014	590,087	589,918	76	0%
2015	604,956	604,712	0	0%
2016	620,071	619,827	0	0%
2017	635,559	635,315	0	0%
2018	651,590	651,346	0	0%
2019	667,785	667,541	0	0%

Notes: Column a - The total number of customers in the business rate classes.
 Column b - The total number of eligible customers in the business rate classes.
 Column d - Column c cumulative / Column b
⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	3,652	0.07	1.00	41,994	1	11
2011	3,652	0.07	1.00	155,555	3	43
2012	3,652	0.07	1.00	189,299	4	52
2013	3,652	0.07	1.00	229,171	4	63
2014	3,652	0.07	1.00	275,797	5	75
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	3,923	0.08	1.09	45,107	1	13
2011	3,923	0.08	1.09	167,085	3	47
2012	3,923	0.08	1.09	203,331	4	57
2013	3,923	0.08	1.09	246,159	5	69
2014	3,923	0.08	1.09	296,240	6	83
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

Program Name: Residential Photovoltaic

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	4,010,837	113	0%
2011	4,056,428	4,056,315	340	0%
2012	4,141,910	4,141,457	340	0%
2013	4,226,978	4,226,185	340	0%
2014	4,311,223	4,310,090	340	0%
2015	4,394,802	4,393,329	0	0%
2016	4,477,937	4,476,465	0	0%
2017	4,560,569	4,559,096	0	0%
2018	4,642,575	4,641,103	0	0%
2019	4,720,827	4,719,355	0	0%

Notes: Column a - The total number of customers in residential rate class.

Column b - The total number of eligible customers in residential rate class.

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	5,373	0.05	1.70	605,222	6	191
2011	5,373	0.05	1.70	1,826,888	17	578
2012	5,373	0.05	1.70	1,826,888	17	578
2013	5,373	0.05	1.70	1,826,888	17	578
2014	5,373	0.05	1.70	1,826,888	17	578
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	5,771	0.06	1.86	650,084	7	209
2011	5,771	0.05	1.86	1,962,307	19	633
2012	5,771	0.05	1.86	1,962,307	19	633
2013	5,771	0.05	1.86	1,962,307	19	633
2014	5,771	0.05	1.86	1,962,307	19	633
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

Program Name: Business Photovoltaic

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	534,490	534,490	20	0%
2011	547,697	547,676	63	0%
2012	561,576	561,492	66	0%
2013	575,598	575,448	71	0%
2014	590,087	589,865	79	0%
2015	604,956	604,655	0	0%
2016	620,071	619,770	0	0%
2017	635,559	635,258	0	0%
2018	651,590	651,289	0	0%
2019	667,785	667,484	0	0%

Notes: Column a - The total number of customers in the business rate classes.

Column b - The total number of eligible customers in the business rate classes.

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	22,344	0.21	7.07	453,327	4	143
2011	22,344	0.21	7.07	1,417,575	13	449
2012	22,344	0.21	7.07	1,484,617	14	470
2013	22,344	0.21	7.07	1,597,342	15	505
2014	22,344	0.21	7.07	1,772,634	17	561
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	24,000	0.23	7.74	486,930	5	157
2011	24,000	0.23	7.74	1,522,654	15	491
2012	24,000	0.23	7.74	1,594,665	15	514
2013	24,000	0.23	7.74	1,715,745	16	553
2014	24,000	0.23	7.74	1,904,031	18	614
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

Program Name: Business Photovoltaics for Schools

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	534,490	534,490	2	0%
2011	547,697	547,695	18	0%
2012	561,576	561,556	22	0%
2013	575,598	575,556	21	0%
2014	590,087	590,024	18	0%
2015	604,956	604,875	0	0%
2016	620,071	619,990	0	0%
2017	635,559	635,478	0	0%
2018	651,590	651,509	0	0%
2019	667,785	667,704	0	0%

Notes: Column a - The total number of customers in the business rate classes.

Column b - The total number of eligible customers in the business rate classes.

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	13,300	0.13	4.21	26,600	0	8
2011	8,128	0.08	2.57	146,300	1	46
2012	7,255	0.07	2.30	159,600	2	51
2013	6,967	0.07	2.20	146,300	1	46
2014	6,650	0.06	2.10	119,700	1	38
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	14,286	0.14	4.61	28,572	0	9
2011	8,730	0.08	2.82	157,145	2	51
2012	7,792	0.07	2.51	171,430	2	55
2013	7,483	0.07	2.41	157,145	2	51
2014	7,143	0.07	2.30	128,573	1	41
2015	0	0.00	0.00	0	0	0
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

Program Name: Residential Home Energy Survey

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	4,010,837	100,000 - 175,000	2% - 4%
2011	4,056,428	4,056,428	100,000 - 175,000	5% - 9%
2012	4,141,910	4,141,910	100,000 - 175,000	7% - 13%
2013	4,226,978	4,226,978	100,000 - 175,000	9% - 17%
2014	4,311,223	4,311,223	100,000 - 175,000	12% - 20%
2015	4,394,802	4,394,802	100,000 - 175,000	14% - 24%
2016	4,477,937	4,477,937	100,000 - 175,000	16% - 27%
2017	4,560,569	4,560,569	100,000 - 175,000	18% - 31%
2018	4,642,575	4,642,575	100,000 - 175,000	19% - 34%
2019	4,720,827	4,720,827	100,000 - 175,000	21% - 37%

Notes: Column a - The total number of customers in residential rate class.
 Column b - The total number of eligible customers in residential rate class.
 Column d - Column c cumulative / Column b
⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	N/A	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A	N/A
2012	N/A	N/A	N/A	N/A	N/A	N/A
2013	N/A	N/A	N/A	N/A	N/A	N/A
2014	N/A	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A	N/A
2016	N/A	N/A	N/A	N/A	N/A	N/A
2017	N/A	N/A	N/A	N/A	N/A	N/A
2018	N/A	N/A	N/A	N/A	N/A	N/A
2019	N/A	N/A	N/A	N/A	N/A	N/A

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	N/A	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A	N/A
2012	N/A	N/A	N/A	N/A	N/A	N/A
2013	N/A	N/A	N/A	N/A	N/A	N/A
2014	N/A	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A	N/A
2016	N/A	N/A	N/A	N/A	N/A	N/A
2017	N/A	N/A	N/A	N/A	N/A	N/A
2018	N/A	N/A	N/A	N/A	N/A	N/A
2019	N/A	N/A	N/A	N/A	N/A	N/A

Program Name: Residential Air Conditioning

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	3,172,427	81,604	3%
2011	4,056,428	3,205,720	70,862	5%
2012	4,141,910	3,274,776	80,214	7%
2013	4,226,978	3,338,730	85,990	10%
2014	4,311,223	3,380,866	89,448	12%
2015	4,394,802	3,424,469	88,096	14%
2016	4,477,937	3,468,155	82,344	17%
2017	4,560,569	3,517,471	65,320	18%
2018	4,642,575	3,561,933	58,619	20%
2019	4,720,827	3,624,420	54,496	21%

Notes: Column a - The total number of customers in residential rate class.

Column b - The total number of residential customers eligible for one or more applicable program measures.

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	1,033	0.25	0.54	84,318,975	20,435	43,917
2011	1,028	0.27	0.54	72,818,657	18,923	38,001
2012	1,033	0.26	0.54	82,836,919	21,026	43,270
2013	1,031	0.26	0.54	88,689,026	22,650	46,316
2014	1,026	0.26	0.54	91,775,747	23,166	47,907
2015	1,035	0.26	0.54	91,156,867	23,246	47,635
2016	1,032	0.26	0.54	84,992,900	21,413	44,298
2017	1,103	0.30	0.58	72,069,661	19,275	37,939
2018	1,114	0.28	0.59	65,322,593	16,664	34,363
2019	1,089	0.23	0.57	59,366,159	12,502	31,236

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	1,110	0.27	0.59	90,569,152	22,373	48,083
2011	1,104	0.29	0.59	78,216,368	20,718	41,606
2012	1,109	0.29	0.59	88,977,239	23,020	47,375
2013	1,108	0.29	0.59	95,263,135	24,799	50,709
2014	1,102	0.28	0.59	98,578,660	25,363	52,452
2015	1,111	0.29	0.59	97,913,905	25,452	52,153
2016	1,109	0.28	0.59	91,293,032	23,444	48,500
2017	1,185	0.32	0.64	77,411,853	21,104	41,538
2018	1,197	0.31	0.64	70,164,655	18,244	37,622
2019	1,170	0.25	0.63	63,766,699	13,688	34,199

Program Name: Residential Duct System Testing & Repair

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	1,708,376	22,138	1%
2011	4,056,428	1,705,657	27,931	3%
2012	4,141,910	1,714,136	39,161	5%
2013	4,226,978	1,711,209	46,337	8%
2014	4,311,223	1,700,755	49,573	11%
2015	4,394,802	1,686,783	51,599	14%
2016	4,477,937	1,670,594	54,516	17%
2017	4,560,569	1,651,274	49,856	21%
2018	4,642,575	1,636,348	45,948	24%
2019	4,720,827	1,623,730	42,273	26%

Notes: Column a - The total number of customers in residential rate class.

Column b - The total number of residential customers eligible for one or more applicable program measures.

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	343	0.21	0.18	7,586,491	4,641	3,968
2011	342	0.21	0.18	9,557,736	5,845	5,000
2012	342	0.21	0.18	13,378,867	8,179	7,000
2013	341	0.21	0.18	15,802,493	9,658	8,269
2014	340	0.21	0.18	16,873,567	10,309	8,831
2015	338	0.21	0.18	17,443,770	10,664	9,135
2016	337	0.21	0.18	18,367,565	11,226	9,621
2017	363	0.22	0.19	18,079,558	11,185	9,409
2018	387	0.24	0.20	17,794,766	11,125	9,209
2019	406	0.24	0.21	17,162,838	10,146	8,877

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	368	0.23	0.20	8,148,843	5,081	4,345
2011	368	0.23	0.20	10,266,207	6,399	5,474
2012	367	0.23	0.20	14,370,581	8,955	7,664
2013	366	0.23	0.20	16,973,859	10,574	9,054
2014	366	0.23	0.20	18,124,327	11,287	9,669
2015	363	0.23	0.19	18,736,796	11,675	10,001
2016	362	0.23	0.19	19,729,068	12,291	10,534
2017	390	0.25	0.21	19,419,713	12,246	10,301
2018	416	0.27	0.22	19,113,810	12,181	10,083
2019	436	0.26	0.23	18,435,040	11,108	9,719

Program Name: Residential Building Envelope

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	2,483,638	12,685	1%
2011	4,056,428	2,499,184	26,955	2%
2012	4,141,910	2,525,163	32,109	3%
2013	4,226,978	2,545,731	37,105	4%
2014	4,311,223	2,560,793	41,175	6%
2015	4,394,802	2,571,373	43,808	8%
2016	4,477,937	2,579,045	42,347	9%
2017	4,560,569	2,587,866	41,287	11%
2018	4,642,575	2,597,361	36,583	12%
2019	4,720,827	2,609,234	29,071	13%

Notes: Column a - The total number of customers in residential rate class.

Column b - The total number of residential customers eligible for one or more applicable program measures.

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	923	0.30	0.41	11,703,509	3,856	5,239
2011	658	0.24	0.31	17,741,038	6,560	8,291
2012	690	0.24	0.32	22,139,926	7,707	10,389
2013	735	0.24	0.35	27,289,090	8,744	12,868
2014	763	0.23	0.36	31,397,282	9,547	14,855
2015	774	0.23	0.37	33,909,917	10,010	16,083
2016	844	0.24	0.40	35,720,071	10,138	16,739
2017	892	0.24	0.42	36,813,281	9,786	17,271
2018	1,009	0.22	0.48	36,926,455	7,968	17,509
2019	1,257	0.25	0.58	36,528,136	7,232	16,904

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	991	0.33	0.45	12,571,036	4,222	5,736
2011	707	0.27	0.34	19,056,099	7,182	9,077
2012	741	0.26	0.35	23,781,057	8,438	11,375
2013	790	0.26	0.38	29,311,904	9,574	14,089
2014	819	0.25	0.40	33,724,618	10,453	16,264
2015	831	0.25	0.40	36,423,503	10,959	17,609
2016	906	0.26	0.43	38,367,835	11,099	18,326
2017	958	0.26	0.46	39,542,080	10,714	18,909
2018	1,084	0.24	0.52	39,663,643	8,724	19,170
2019	1,350	0.27	0.64	39,235,798	7,918	18,508

Program Name: Residential New Construction (BuildSmart®)

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	18,505	2,879	16%
2011	4,056,428	30,508	5,564	18%
2012	4,141,910	36,750	7,164	19%
2013	4,226,978	39,597	8,604	22%
2014	4,311,223	41,313	10,265	25%
2015	4,394,802	43,189	9,733	23%
2016	4,477,937	43,800	9,871	23%
2017	4,560,569	44,274	9,977	23%
2018	4,642,575	45,278	10,203	23%
2019	4,720,827	46,918	8,006	17%

Notes: Column a - The total number of customers in residential rate class.

Column b - The projected annual number of program-eligible new homes.

Column d - Column c / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	1,363	0.39	0.86	3,925,225	1,121	2,469
2011	1,363	0.39	0.86	7,586,622	2,167	4,773
2012	1,388	0.40	0.87	9,945,031	2,856	6,248
2013	1,409	0.41	0.88	12,125,307	3,508	7,604
2014	1,437	0.42	0.90	14,751,361	4,308	9,229
2015	1,470	0.43	0.92	14,310,398	4,224	8,929
2016	1,470	0.43	0.92	14,513,101	4,284	9,055
2017	1,470	0.43	0.92	14,670,006	4,330	9,153
2018	1,470	0.43	0.92	15,002,561	4,428	9,361
2019	1,663	0.50	1.04	13,312,380	3,965	8,299

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	1,464	0.43	0.94	4,216,184	1,228	2,703
2011	1,464	0.43	0.94	8,148,983	2,373	5,225
2012	1,491	0.44	0.95	10,682,211	3,127	6,841
2013	1,514	0.45	0.97	13,024,100	3,841	8,325
2014	1,544	0.46	0.98	15,844,812	4,717	10,104
2015	1,579	0.48	1.00	15,371,161	4,625	9,776
2016	1,579	0.48	1.00	15,588,890	4,690	9,914
2017	1,579	0.48	1.00	15,757,426	4,741	10,021
2018	1,579	0.48	1.00	16,114,632	4,848	10,249
2019	1,786	0.54	1.13	14,299,165	4,341	9,086

Program Name: Residential Load Management (On Call)

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	3,225,872	9,615	0%
2011	4,056,428	3,261,848	9,615	1%
2012	4,141,910	3,337,715	9,615	1%
2013	4,226,978	3,413,168	3,000	1%
2014	4,311,223	3,494,413	3,000	1%
2015	4,394,802	3,574,992	3,000	1%
2016	4,477,937	3,655,127	3,000	1%
2017	4,560,569	3,734,759	3,000	1%
2018	4,642,575	3,813,765	3,000	1%
2019	4,720,827	3,889,017	3,000	1%

Notes: Column a - The total number of customers in residential rate class.

Column b - The total number of residential customers eligible for one or more applicable program measures.

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	19	1.04	1.14	182,655	10,000	10,961
2011	19	1.04	1.14	182,655	10,000	10,961
2012	19	1.04	1.14	182,655	10,000	10,961
2013	19	1.04	1.14	56,991	3,120	3,420
2014	19	1.04	1.14	56,991	3,120	3,420
2015	19	1.04	1.14	56,991	3,120	3,420
2016	19	1.04	1.14	56,991	3,120	3,420
2017	19	1.04	1.14	56,991	3,120	3,420
2018	19	1.04	1.14	56,991	3,120	3,420
2019	19	1.04	1.14	56,991	3,120	3,420

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	20	1.14	1.25	196,195	10,948	12,001
2011	20	1.14	1.25	196,195	10,948	12,001
2012	20	1.14	1.25	196,195	10,948	12,001
2013	20	1.14	1.25	61,215	3,416	3,744
2014	20	1.14	1.25	61,215	3,416	3,744
2015	20	1.14	1.25	61,215	3,416	3,744
2016	20	1.14	1.25	61,215	3,416	3,744
2017	20	1.14	1.25	61,215	3,416	3,744
2018	20	1.14	1.25	61,215	3,416	3,744
2019	20	1.14	1.25	61,215	3,416	3,744

Staff Table 1 a-c. - Revised

Docket: 100155-EG Staff's First Data Request

Program Name: Residential AC Tune-Up & Maintenance

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	3,730,079	0	0%
2011	4,056,428	3,772,478	6,697	0%
2012	4,141,910	3,845,280	7,409	0%
2013	4,226,978	3,916,984	8,188	1%
2014	4,311,223	3,987,144	9,040	1%
2015	4,394,802	4,055,832	9,970	1%
2016	4,477,937	4,123,178	10,982	1%
2017	4,560,569	4,189,044	12,080	2%
2018	4,642,575	4,253,230	13,270	2%
2019	4,720,827	4,312,734	14,555	2%

Notes: Column a - The total number of customers in residential rate class.

Column b - The total number of residential customers eligible for one or more applicable program measures.

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	0	0.00	0.00	0	0	0
2011	416	0.00	0.24	2,784,696	0	1,628
2012	416	0.00	0.24	3,080,731	0	1,801
2013	416	0.00	0.24	3,404,918	0	1,991
2014	416	0.00	0.24	3,759,261	0	2,198
2015	416	0.00	0.24	4,145,773	0	2,424
2016	416	0.00	0.24	4,566,451	0	2,670
2017	416	0.00	0.24	5,023,237	0	2,937
2018	416	0.00	0.24	5,517,982	0	3,226
2019	321	0.00	0.19	4,678,292	0	2,758

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	0	0.00	0.00	0	0	0
2011	447	0.00	0.27	2,991,112	0	1,782
2012	447	0.00	0.27	3,309,092	0	1,972
2013	447	0.00	0.27	3,657,309	0	2,179
2014	447	0.00	0.27	4,037,917	0	2,406
2015	447	0.00	0.27	4,453,080	0	2,654
2016	447	0.00	0.27	4,904,941	0	2,923
2017	447	0.00	0.27	5,395,586	0	3,215
2018	447	0.00	0.27	5,927,005	0	3,532
2019	345	0.00	0.21	5,025,072	0	3,020

Program Name: Residential Refrigerator Replacement

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,010,837	4,010,837	0	0%
2011	4,056,428	4,056,428	20,390	1%
2012	4,141,910	4,121,520	28,014	1%
2013	4,226,978	4,178,574	37,292	2%
2014	4,311,223	4,225,527	47,862	3%
2015	4,394,802	4,261,244	33,079	4%
2016	4,477,937	4,311,301	0	4%
2017	4,560,569	4,393,933	0	4%
2018	4,642,575	4,475,939	0	4%
2019	4,720,827	4,554,191	0	4%

Notes: Column a - The total number of customers in residential rate class.

Column b - The total number of residential customers eligible for one or more applicable program measures.

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	0	0.00	0.00	0	0	0
2011	100	0.03	0.03	2,038,972	620	667
2012	100	0.03	0.03	2,801,384	851	917
2013	100	0.03	0.03	3,729,239	1,133	1,220
2014	100	0.03	0.03	4,786,161	1,455	1,566
2015	100	0.03	0.03	3,307,869	1,005	1,082
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	0	0.00	0.00	0	0	0
2011	107	0.03	0.04	2,190,111	678	730
2012	107	0.03	0.04	3,009,037	932	1,003
2013	107	0.03	0.04	4,005,670	1,241	1,336
2014	107	0.03	0.04	5,140,937	1,593	1,714
2015	107	0.03	0.04	3,553,066	1,101	1,185
2016	0	0.00	0.00	0	0	0
2017	0	0.00	0.00	0	0	0
2018	0	0.00	0.00	0	0	0
2019	0	0.00	0.00	0	0	0

Program Name: Business Energy Evaluation

Year	(a) Total Number of Customers	(b) Total Number of Eligible Customers	(c) Annual Number of Participants	(d) Cumulative Penetration Level % ⁽¹⁾
2010	534,490	534,490	13,081	2%
2011	547,697	547,697	13,277	5%
2012	561,576	561,576	13,476	7%
2013	575,598	575,598	13,679	9%
2014	590,087	590,087	13,884	11%
2015	604,956	604,956	14,092	13%
2016	620,071	620,071	14,303	15%
2017	635,559	635,559	14,518	17%
2018	651,590	651,590	14,736	19%
2019	667,785	667,785	14,957	21%

Notes: Column a - The total number of customers in the business rate classes.
 Column b - The total number of eligible customers in the business rate classes.
 Column d - Column c cumulative / Column b
⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	N/A	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A	N/A
2012	N/A	N/A	N/A	N/A	N/A	N/A
2013	N/A	N/A	N/A	N/A	N/A	N/A
2014	N/A	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A	N/A
2016	N/A	N/A	N/A	N/A	N/A	N/A
2017	N/A	N/A	N/A	N/A	N/A	N/A
2018	N/A	N/A	N/A	N/A	N/A	N/A
2019	N/A	N/A	N/A	N/A	N/A	N/A

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	N/A	N/A	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A	N/A	N/A
2012	N/A	N/A	N/A	N/A	N/A	N/A
2013	N/A	N/A	N/A	N/A	N/A	N/A
2014	N/A	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A	N/A
2016	N/A	N/A	N/A	N/A	N/A	N/A
2017	N/A	N/A	N/A	N/A	N/A	N/A
2018	N/A	N/A	N/A	N/A	N/A	N/A
2019	N/A	N/A	N/A	N/A	N/A	N/A

Staff Table 1 a-c. - Revised

Docket: 100155-EG Staff's First Data Request

Program Name: Business Heating, Ventilating & Air-Conditioning

Year	(a) Total Number of Customers (kW)	(b) Total Number of Eligible Customers (kW)	(c) Annual Number of Participants (kW)	(d) Cumulative Penetration Level % ⁽¹⁾
2010	605,498	378,692	12,111	3%
2011	620,548	375,994	18,314	8%
2012	635,972	367,327	22,685	14%
2013	651,779	354,528	25,518	22%
2014	667,980	339,142	26,062	31%
2015	684,583	323,464	21,686	39%
2016	701,598	312,420	18,403	46%
2017	719,037	304,923	4,685	49%
2018	736,909	311,415	4,552	49%
2019	755,226	318,319	4,448	50%

Notes: Column a - The total summer kw of all program-applicable equipment in the business rate classes (one customer represents one summer kW).

Column b - The total summer kw of all program-eligible equipment in the business rate classes (one customer represents one summer kW).

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	3,525	1.90	1.00	42,691,975	22,996	12,111
2011	3,753	1.05	1.00	68,731,456	19,268	18,314
2012	4,746	1.15	1.00	107,666,376	26,029	22,685
2013	4,716	1.08	1.00	120,355,411	27,498	25,518
2014	4,652	1.07	1.00	121,249,521	27,801	26,062
2015	4,542	1.26	1.00	98,503,616	27,406	21,686
2016	2,739	1.07	1.00	50,408,004	19,641	18,403
2017	1,917	3.38	1.00	8,981,242	15,846	4,685
2018	1,874	3.48	1.00	8,529,965	15,838	4,552
2019	1,848	3.56	1.00	8,221,256	15,829	4,448

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	3,786	2.08	1.09	45,856,535	25,177	13,259
2011	4,031	1.15	1.09	73,826,203	21,096	20,051
2012	5,098	1.26	1.09	115,647,188	28,498	24,837
2013	5,066	1.18	1.09	129,276,804	30,106	27,939
2014	4,997	1.17	1.09	130,237,189	30,438	28,534
2015	4,879	1.38	1.09	105,805,236	30,006	23,743
2016	2,942	1.17	1.09	54,144,517	21,504	20,149
2017	2,059	3.70	1.09	9,646,980	17,349	5,130
2018	2,013	3.81	1.09	9,162,252	17,340	4,984
2019	1,985	3.90	1.09	8,830,660	17,330	4,870

Program Name: Business Lighting

Year	(a) Total Number of Customers (kW)	(b) Total Number of Eligible Customers (kW)	(c) Annual Number of Participants (kW)	(d) Cumulative Penetration Level % ⁽¹⁾
2010	842,587	449,346	4,352	1%
2011	863,530	456,162	7,888	3%
2012	884,994	459,721	8,154	4%
2013	906,991	463,297	8,390	6%
2014	929,535	466,930	8,532	8%
2015	952,639	470,719	7,197	9%
2016	976,317	476,149	6,768	11%
2017	1,000,584	482,323	7,469	12%
2018	1,025,454	488,117	8,507	14%
2019	1,050,943	493,202	9,053	15%

Notes: Column a - The total summer kw of all program-applicable equipment in the business rate classes (one customer represents one summer kW).

Column b - The total summer kw of all program-eligible equipment in the business rate classes (one customer represents one summer kW).

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	3,311	0.63	1.00	14,410,903	2,758	4,352
2011	3,456	0.65	1.00	27,262,175	5,126	7,888
2012	3,478	0.65	1.00	28,358,824	5,316	8,154
2013	3,502	0.65	1.00	29,377,937	5,495	8,390
2014	3,529	0.66	1.00	30,112,988	5,607	8,532
2015	3,609	0.67	1.00	25,974,976	4,799	7,197
2016	3,671	0.67	1.00	24,843,495	4,526	6,768
2017	3,676	0.67	1.00	27,458,160	5,000	7,469
2018	3,664	0.67	1.00	31,169,216	5,697	8,507
2019	3,670	0.67	1.00	33,221,961	6,069	9,053

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	3,556	0.69	1.09	15,479,117	3,020	4,765
2011	3,712	0.71	1.09	29,282,994	5,612	8,636
2012	3,736	0.71	1.09	30,460,933	5,821	8,928
2013	3,761	0.72	1.09	31,555,589	6,016	9,185
2014	3,791	0.72	1.09	32,345,125	6,139	9,342
2015	3,876	0.73	1.09	27,900,382	5,254	7,880
2016	3,943	0.73	1.09	26,685,029	4,955	7,409
2017	3,949	0.73	1.09	29,493,507	5,474	8,178
2018	3,935	0.73	1.09	33,479,646	6,238	9,314
2019	3,942	0.73	1.09	35,684,552	6,644	9,912

Program Name: Business Refrigeration

Year	(a) Total Number of Customers (kW)	(b) Total Number of Eligible Customers (kW)	(c) Annual Number of Participants (kW)	(d) Cumulative Penetration Level % ⁽¹⁾
2010	87,601	45,200	535	1%
2011	89,778	45,789	1,240	4%
2012	92,010	45,701	927	6%
2013	94,297	45,954	964	8%
2014	96,641	46,199	907	10%
2015	99,043	46,531	804	12%
2016	101,505	46,997	782	13%
2017	104,028	47,517	804	15%
2018	106,613	48,048	809	16%
2019	109,263	48,606	799	18%

Notes: Column a - The total summer kw of all program-applicable equipment in the business rate classes (one customer represents one summer kW).

Column b - The total summer kw of all program-eligible equipment in the business rate classes (one customer represents one summer kW).

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	7,105	0.33	1.00	3,797,827	178	535
2011	8,012	0.57	1.00	9,933,040	704	1,240
2012	8,474	0.86	1.00	7,852,431	799	927
2013	8,574	0.91	1.00	8,269,454	882	964
2014	9,182	0.94	1.00	8,327,473	850	907
2015	9,420	0.96	1.00	7,576,587	773	804
2016	9,617	1.03	1.00	7,516,229	809	782
2017	9,621	1.03	1.00	7,731,180	829	804
2018	9,626	1.03	1.00	7,790,745	832	809
2019	9,630	1.03	1.00	7,694,115	819	799

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	7,631	0.36	1.09	4,079,343	194	585
2011	8,605	0.62	1.09	10,669,331	770	1,357
2012	9,102	0.94	1.09	8,434,496	875	1,015
2013	9,210	1.00	1.09	8,882,430	965	1,056
2014	9,863	1.03	1.09	8,944,751	931	993
2015	10,118	1.05	1.09	8,138,205	847	881
2016	10,330	1.13	1.09	8,073,373	885	856
2017	10,335	1.13	1.09	8,304,257	907	880
2018	10,339	1.13	1.09	8,368,237	911	886
2019	10,344	1.12	1.09	8,264,444	897	875

Program Name: Business Building Envelope

Year	(a) Total Number of Customers (kW)	(b) Total Number of Eligible Customers (kW)	(c) Annual Number of Participants (kW)	(d) Cumulative Penetration Level % ⁽¹⁾
2010	455,771	455,771	5,710	1%
2011	467,099	461,478	15,083	5%
2012	478,709	458,231	17,525	8%
2013	490,608	452,874	19,031	13%
2014	502,802	446,344	18,499	17%
2015	515,300	440,680	18,057	21%
2016	528,108	435,706	12,400	24%
2017	541,234	436,457	11,900	27%
2018	554,687	438,035	6,077	28%
2019	568,474	445,772	793	28%

Notes: Column a - The total summer kw of all program-applicable equipment in the business rate classes (one customer represents one summer kW).

Column b - The total summer kw of all program-eligible equipment in the business rate classes (one customer represents one summer kW).

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	2,090	0.09	1.00	11,933,510	523	5,710
2011	2,035	0.09	1.00	30,697,746	1,339	15,083
2012	2,023	0.08	1.00	35,458,121	1,402	17,525
2013	2,025	0.07	1.00	38,534,211	1,314	19,031
2014	1,975	0.08	1.00	36,544,111	1,514	18,499
2015	1,939	0.08	1.00	35,018,025	1,404	18,057
2016	1,938	0.05	1.00	24,027,074	664	12,400
2017	1,938	0.05	1.00	23,063,753	556	11,900
2018	1,936	0.08	1.00	11,763,492	469	6,077
2019	1,907	0.51	1.00	1,512,139	402	793

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	2,245	0.10	1.09	12,818,087	572	6,251
2011	2,186	0.10	1.09	32,973,228	1,466	16,514
2012	2,173	0.09	1.09	38,086,468	1,535	19,188
2013	2,175	0.08	1.09	41,390,574	1,439	20,837
2014	2,122	0.09	1.09	39,252,958	1,657	20,254
2015	2,083	0.09	1.09	37,613,750	1,537	19,770
2016	2,081	0.06	1.09	25,808,091	727	13,577
2017	2,082	0.05	1.09	24,773,363	609	13,028
2018	2,079	0.08	1.09	12,635,465	514	6,653
2019	2,048	0.56	1.09	1,624,227	440	868

Program Name: Business Water Heating

Year	(a) Total Number of Customers (kW)	(b) Total Number of Eligible Customers (kW)	(c) Annual Number of Participants (kW)	(d) Cumulative Penetration Level % ⁽¹⁾
2010	80,321	73,863	465	1%
2011	82,317	75,233	526	1%
2012	84,363	76,588	578	2%
2013	86,460	77,939	1,117	3%
2014	88,609	78,798	691	4%
2015	90,812	80,133	426	5%
2016	93,069	81,783	259	5%
2017	95,382	83,651	259	5%
2018	97,753	85,573	259	5%
2019	100,182	87,548	743	6%

Notes: Column a - The total summer kW of all program-applicable equipment in the business rate classes (one customer represents one summer kW).

Column b - The total summer kW of all program-eligible equipment in the business rate classes (one customer represents one summer kW).

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	5,411	0.62	1.00	2,518,450	290	465
2011	7,308	0.62	1.00	3,847,541	328	526
2012	7,308	0.62	1.00	4,222,490	360	578
2013	5,218	0.62	1.00	5,826,850	696	1,117
2014	7,308	0.62	1.00	5,047,600	430	691
2015	7,308	0.62	1.00	3,113,155	265	426
2016	7,308	0.62	1.00	1,891,137	161	259
2017	7,308	0.62	1.00	1,891,137	161	259
2018	7,308	0.62	1.00	1,891,137	161	259
2019	4,166	0.62	1.00	3,093,689	463	743

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	5,812	0.68	1.09	2,705,131	317	510
2011	7,850	0.68	1.09	4,132,741	359	576
2012	7,850	0.68	1.09	4,535,484	394	633
2013	5,605	0.68	1.09	6,258,768	762	1,223
2014	7,850	0.68	1.09	5,421,755	471	756
2015	7,850	0.68	1.09	3,343,919	291	466
2016	7,850	0.68	1.09	2,031,319	177	283
2017	7,850	0.68	1.09	2,031,319	177	283
2018	7,850	0.68	1.09	2,031,319	177	283
2019	4,474	0.68	1.09	3,323,010	507	813

Program Name: Business Custom Incentive

Year	(a) Total Number of Customers (kW)	(b) Total Number of Eligible Customers (kW)	(c) Annual Number of Participants (kW)	(d) Cumulative Penetration Level % ⁽¹⁾
2010	139,467	90,912	274	0%
2011	142,934	92,898	294	1%
2012	146,487	94,919	316	1%
2013	150,128	96,976	340	1%
2014	153,859	99,069	365	2%
2015	157,683	101,196	392	2%
2016	161,603	103,359	422	2%
2017	165,619	105,555	453	3%
2018	169,736	107,786	487	3%
2019	173,955	110,049	523	4%

Notes: Column a - The total summer kW of all program-applicable equipment in the business rate classes (one customer represents one summer kW).

Column b - The total summer kW of all program-eligible equipment in the business rate classes (one customer represents one summer kW).

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	7,189	0.49	1.00	1,969,819	134	274
2011	7,189	0.49	1.00	2,116,491	144	294
2012	7,189	0.49	1.00	2,274,084	155	316
2013	7,189	0.49	1.00	2,443,412	167	340
2014	7,189	0.49	1.00	2,625,347	179	365
2015	7,189	0.49	1.00	2,820,830	192	392
2016	7,189	0.49	1.00	3,030,868	207	422
2017	7,189	0.49	1.00	3,256,545	222	453
2018	7,189	0.49	1.00	3,499,027	238	487
2019	7,189	0.49	1.00	3,759,563	256	523

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	7,722	0.54	1.09	2,115,832	147	300
2011	7,722	0.54	1.09	2,273,377	158	322
2012	7,722	0.54	1.09	2,442,652	170	346
2013	7,722	0.54	1.09	2,624,531	182	372
2014	7,722	0.54	1.09	2,819,952	196	400
2015	7,722	0.54	1.09	3,029,925	211	430
2016	7,722	0.54	1.09	3,255,532	226	462
2017	7,722	0.54	1.09	3,497,938	243	496
2018	7,722	0.54	1.09	3,758,394	261	533
2019	7,722	0.54	1.09	4,038,242	281	573

Program Name: Business On Call

Year	(a) Total Number of Customers (kW)	(b) Total Number of Eligible Customers (kW)	(c) Annual Number of Participants (kW)	(d) Cumulative Penetration Level % ⁽¹⁾
2010	1,723,593	1,632,987	3,657	0%
2011	1,766,434	1,672,171	3,657	0%
2012	1,810,340	1,712,420	3,657	1%
2013	1,855,337	1,753,760	3,657	1%
2014	1,901,452	1,796,219	3,657	1%
2015	1,948,714	1,839,824	3,657	1%
2016	1,997,150	1,884,604	3,657	1%
2017	2,046,791	1,930,587	3,657	2%
2018	2,097,665	1,977,805	3,657	2%
2019	2,149,804	2,026,287	3,657	2%

- Notes: Column a - The total summer kW of all program-applicable equipment in the GS & GSD business rate classes (one customer represents one summer kW).
 Column b - The total summer kW of all program-eligible equipment in the GS & GSD business rate classes (one customer represents one summer kW).
 Column d - Column c cumulative / Column b
⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	1	0.00	1.00	3,698	0	3,657
2011	1	0.00	1.00	3,698	0	3,657
2012	1	0.00	1.00	3,698	0	3,657
2013	1	0.00	1.00	3,698	0	3,657
2014	1	0.00	1.00	3,698	0	3,657
2015	1	0.00	1.00	3,698	0	3,657
2016	1	0.00	1.00	3,698	0	3,657
2017	1	0.00	1.00	3,698	0	3,657
2018	1	0.00	1.00	3,698	0	3,657
2019	1	0.00	1.00	3,698	0	3,657

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	1	0.00	1.09	3,972	0	4,004
2011	1	0.00	1.09	3,972	0	4,004
2012	1	0.00	1.09	3,972	0	4,004
2013	1	0.00	1.09	3,972	0	4,004
2014	1	0.00	1.09	3,972	0	4,004
2015	1	0.00	1.09	3,972	0	4,004
2016	1	0.00	1.09	3,972	0	4,004
2017	1	0.00	1.09	3,972	0	4,004
2018	1	0.00	1.09	3,972	0	4,004
2019	1	0.00	1.09	3,972	0	4,004

Program Name: Commercial/Industrial Demand Reduction

Year	(a) Total Number of Customers (kW)	(b) Total Number of Eligible Customers (kW)	(c) Annual Number of Participants (kW)	(d) Cumulative Penetration Level % ⁽¹⁾
2010	4,895,780	3,780,346	13,073	0%
2011	5,017,468	3,861,236	13,073	1%
2012	5,142,180	3,944,461	13,073	1%
2013	5,269,992	4,030,080	13,073	1%
2014	5,400,981	4,118,152	12,993	2%
2015	5,535,225	4,208,817	12,993	2%
2016	5,672,807	4,302,059	12,993	2%
2017	5,813,808	4,397,942	12,993	2%
2018	5,958,314	4,496,530	12,993	3%
2019	6,106,411	4,597,892	12,993	3%

Notes: Column a - The total summer kw of all program-applicable equipment for business customers with demands greater than 200 kW (one customer represents one summer kW).

Column b - The total summer kw of all program-applicable equipment for business customers with demands greater than 200 kW (one customer represents one summer kW).

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	8	1.00	1.00	99,355	13,073	13,073
2011	8	1.00	1.00	99,355	13,073	13,073
2012	8	1.00	1.00	99,355	13,073	13,073
2013	8	1.00	1.00	99,355	13,073	13,073
2014	8	1.00	1.00	98,751	12,993	12,993
2015	8	1.00	1.00	98,751	12,993	12,993
2016	8	1.00	1.00	98,751	12,993	12,993
2017	8	1.00	1.00	98,751	12,993	12,993
2018	8	1.00	1.00	98,751	12,993	12,993
2019	8	1.00	1.00	98,751	12,993	12,993

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	8	1.09	1.09	106,720	14,313	14,313
2011	8	1.09	1.09	106,720	14,313	14,313
2012	8	1.09	1.09	106,720	14,313	14,313
2013	8	1.09	1.09	106,720	14,313	14,313
2014	8	1.09	1.09	106,071	14,226	14,226
2015	8	1.09	1.09	106,071	14,226	14,226
2016	8	1.09	1.09	106,071	14,226	14,226
2017	8	1.09	1.09	106,071	14,226	14,226
2018	8	1.09	1.09	106,071	14,226	14,226
2019	8	1.09	1.09	106,071	14,226	14,226

Program Name: Business Motors

Year	(a) Total Number of Customers (kW)	(b) Total Number of Eligible Customers (kW)	(c) Annual Number of Participants (kW)	(d) Cumulative Penetration Level % ⁽¹⁾
2010	62,588	15,259	0	0%
2011	64,144	15,639	79	1%
2012	65,738	15,948	83	1%
2013	67,372	16,264	86	2%
2014	69,047	16,586	89	2%
2015	70,763	16,915	92	3%
2016	72,522	17,252	94	3%
2017	74,324	17,597	96	4%
2018	76,172	17,952	97	4%
2019	78,065	18,316	98	4%

Notes: Column a - The total summer kw of all program-applicable equipment in the business rate classes (one customer represents one summer kW).

Column b - The total summer kw of all program-eligible equipment in the business rate classes (one customer represents one summer kW).

Column d - Column c cumulative / Column b

⁽¹⁾ Cumulative Penetration Level addresses participants in 2010 and beyond.

At the Meter

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	0	0.00	0.00	0	0	0
2011	5,021	0.03	1.00	396,958	2	79
2012	5,021	0.03	1.00	415,502	2	83
2013	5,021	0.03	1.00	432,714	2	86
2014	5,021	0.03	1.00	448,254	3	89
2015	5,021	0.03	1.00	461,795	3	92
2016	5,021	0.03	1.00	473,032	3	94
2017	5,021	0.03	1.00	481,706	3	96
2018	5,021	0.03	1.00	487,610	3	97
2019	5,021	0.03	1.00	490,611	3	98

At the Generator

Year	Per Customer KWh Reduction	Per Customer Winter KW Reduction	Per Customer Summer KW Reduction	Total Annual KWh Reduction	Total Annual Winter KW Reduction	Total Annual Summer KW Reduction
2010	0	0.00	0.00	0	0	0
2011	5,393	0.03	1.09	426,383	2	87
2012	5,393	0.03	1.09	446,301	3	91
2013	5,393	0.03	1.09	464,789	3	94
2014	5,393	0.03	1.09	481,482	3	98
2015	5,393	0.03	1.09	496,025	3	101
2016	5,393	0.03	1.09	508,096	3	103
2017	5,393	0.03	1.09	517,412	3	105
2018	5,393	0.03	1.09	523,754	3	106
2019	5,393	0.03	1.09	526,978	3	107

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME: Business Building Envelope Program

YEAR	BEG-YEAR RATE BASE \$(000)	(3) DEBT \$(000)	(4) PREFERRED STOCK \$(000)	(5) COMMON EQUITY \$(000)	(6) INCOME TAXES \$(000)	(7) PROPERTY TAX \$(000)	(8) PROPERTY INSURANCE \$(000)	(9) DEPREC. \$(000)	(10) DEFERRED TAXES \$(000)	(11) TOTAL FIXED CHARGES \$(000)	PRESENT	(13)	(14) REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
											(12) WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	
2019	135,848	4,220	0	9,481	6,254	2,289	808	5,299	10	28,362	28,362	28,362	132,486
2020	130,539	4,055	0	9,110	4,297	2,194	828	5,299	1,734	27,519	25,273	53,635	135,798
2021	123,505	3,837	0	8,619	4,259	2,099	849	5,299	1,465	26,426	22,289	75,923	139,193
2022	116,741	3,626	0	8,147	4,209	2,003	870	5,299	1,218	25,373	19,654	95,577	142,673
2023	110,223	3,424	0	7,692	4,156	1,908	892	5,299	986	24,357	17,327	112,904	146,240
2024	103,938	3,229	0	7,254	4,093	1,812	914	5,299	773	23,374	15,271	128,175	149,896
2025	97,865	3,040	0	6,830	4,024	1,717	937	5,299	576	22,423	13,454	141,629	153,644
2026	91,990	2,858	0	6,420	3,948	1,622	961	5,299	394	21,501	11,848	153,477	157,485
2027	86,297	2,681	0	6,022	3,729	1,526	985	5,299	364	20,606	10,428	163,905	161,422
2028	80,633	2,505	0	5,627	3,481	1,431	1,009	5,299	364	19,716	9,163	173,068	165,457
2029	74,970	2,329	0	5,232	3,232	1,335	1,035	5,299	364	18,827	8,036	181,103	169,594
2030	69,307	2,153	0	4,837	2,985	1,240	1,060	5,299	364	17,938	7,031	188,135	173,834
2031	63,644	1,977	0	4,442	2,736	1,145	1,087	5,299	364	17,050	6,138	194,272	178,179
2032	57,980	1,801	0	4,046	2,488	1,049	1,114	5,299	364	16,162	5,343	199,616	182,634
2033	52,317	1,625	0	3,651	2,239	954	1,142	5,299	364	15,275	4,638	204,254	187,200
2034	46,653	1,449	0	3,256	1,992	859	1,170	5,299	364	14,389	4,012	208,266	191,880
2035	40,990	1,273	0	2,861	1,743	763	1,200	5,299	364	13,503	3,458	211,724	196,677
2036	35,327	1,097	0	2,465	1,495	668	1,230	5,299	364	12,619	2,968	214,692	201,594
2037	29,664	921	0	2,070	1,247	572	1,260	5,299	364	11,735	2,535	217,226	206,633
2038	24,000	746	0	1,675	999	477	1,292	5,299	364	10,851	2,153	219,379	211,799
2039	18,337	570	0	1,280	1,859	382	1,324	5,299	(745)	9,969	1,816	221,195	217,094
2040	13,783	428	0	962	2,768	286	1,357	5,299	(1,853)	9,248	1,547	222,742	222,522
2041	10,337	321	0	721	2,617	191	1,391	5,299	(1,853)	8,688	1,335	224,077	228,085
2042	6,891	214	0	481	2,466	95	1,426	5,299	(1,853)	8,128	1,147	225,224	233,787
2043	3,445	107	0	240	2,315	(0)	1,462	5,299	(1,853)	7,570	981	226,205	239,631

IN SERVICE COST (\$000)	132,486
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST =

1.70738

DOCUMENT NUMBER - DATE

05437 JUL-19

FPSC-COMPLIANCE OFFICER

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Business Building Envelope Program**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	4,831	4,831	5,299	5,299	4,805	4,805	10	12,366	0	0	0	10	(3,352)
2020	7.22%	9,301	14,132	5,299	10,599	4,805	9,610	1,734	12,366	0	0	0	1,734	(1,618)
2021	6.68%	8,602	22,734	5,299	15,898	4,805	14,414	1,465	12,366	0	0	0	1,465	(153)
2022	6.18%	7,962	30,696	5,299	21,198	4,805	19,219	1,218	12,366	0	0	0	1,218	1,065
2023	5.71%	7,360	38,057	5,299	26,497	4,805	24,024	986	12,366	0	0	0	986	2,051
2024	5.29%	6,809	44,866	5,299	31,797	4,805	28,829	773	12,366	0	0	0	773	2,824
2025	4.89%	6,297	51,163	5,299	37,096	4,805	33,634	576	12,366	0	0	0	576	3,400
2026	4.52%	5,826	56,989	5,299	42,396	4,805	38,438	394	12,366	0	0	0	394	3,794
2027	4.46%	5,749	62,738	5,299	47,695	4,805	43,243	364	12,366	0	0	0	364	4,158
2028	4.46%	5,747	68,485	5,299	52,995	4,805	48,048	364	12,366	0	0	0	364	4,522
2029	4.46%	5,749	74,234	5,299	58,294	4,805	52,853	364	12,366	0	0	0	364	4,886
2030	4.46%	5,747	79,981	5,299	63,593	4,805	57,658	364	12,366	0	0	0	364	5,249
2031	4.46%	5,749	85,730	5,299	68,893	4,805	62,462	364	12,366	0	0	0	364	5,613
2032	4.46%	5,747	91,477	5,299	74,192	4,805	67,267	364	12,366	0	0	0	364	5,977
2033	4.46%	5,749	97,226	5,299	79,492	4,805	72,072	364	12,366	0	0	0	364	6,341
2034	4.46%	5,747	102,973	5,299	84,791	4,805	76,877	364	12,366	0	0	0	364	6,705
2035	4.46%	5,749	108,722	5,299	90,091	4,805	81,682	364	12,366	0	0	0	364	7,069
2036	4.46%	5,747	114,469	5,299	95,390	4,805	86,486	364	12,366	0	0	0	364	7,432
2037	4.46%	5,749	120,218	5,299	100,690	4,805	91,291	364	12,366	0	0	0	364	7,796
2038	4.46%	5,747	125,965	5,299	105,989	4,805	96,096	364	12,366	0	0	0	364	8,160
2039	2.23%	2,874	128,840	5,299	111,289	4,805	100,901	(745)	12,366	0	0	0	(745)	7,415
2040	0.00%	0	128,840	5,299	116,588	4,805	105,706	(1,853)	12,366	0	0	0	(1,853)	5,562
2041	0.00%	0	128,840	5,299	121,887	4,805	110,510	(1,853)	12,366	0	0	0	(1,853)	3,708
2042	0.00%	0	128,840	5,299	127,187	4,805	115,315	(1,853)	12,366	0	0	0	(1,853)	1,855
2043	0.00%	0	128,840	5,299	132,486	4,805	120,120	(1,853)	12,366	0	0	0	(1,853)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(3,362)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	12,366
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Business Building Envelope Program

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END OF YEAR NET									
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	4,831	10	127,187	5,299	(3,352)	135,848	130,539	133,194
2020	7.22%	9,301	1,734	121,887	10,599	(1,618)	130,539	123,505	127,022
2021	6.68%	8,602	1,465	116,588	15,898	(153)	123,505	116,741	120,123
2022	6.18%	7,962	1,218	111,289	21,198	1,065	116,741	110,223	113,482
2023	5.71%	7,360	986	105,989	26,497	2,051	110,223	103,938	107,081
2024	5.29%	6,809	773	100,690	31,797	2,824	103,938	97,865	100,902
2025	4.89%	6,297	576	95,390	37,096	3,400	97,865	91,990	94,928
2026	4.52%	5,826	394	90,091	42,396	3,794	91,990	86,297	89,143
2027	4.46%	5,749	364	84,791	47,695	4,158	86,297	80,633	83,465
2028	4.46%	5,747	364	79,492	52,995	4,522	80,633	74,970	77,802
2029	4.46%	5,749	364	74,192	58,294	4,886	74,970	69,307	72,138
2030	4.46%	5,747	364	68,893	63,593	5,249	69,307	63,644	66,475
2031	4.46%	5,749	364	63,593	68,893	5,613	63,644	57,980	60,812
2032	4.46%	5,747	364	58,294	74,192	5,977	57,980	52,317	55,149
2033	4.46%	5,749	364	52,995	79,492	6,341	52,317	46,653	49,485
2034	4.46%	5,747	364	47,695	84,791	6,705	46,653	40,990	43,822
2035	4.46%	5,749	364	42,396	90,091	7,069	40,990	35,327	38,159
2036	4.46%	5,747	364	37,096	95,390	7,432	35,327	29,664	32,495
2037	4.46%	5,749	364	31,797	100,690	7,796	29,664	24,000	26,832
2038	4.46%	5,747	364	26,497	105,989	8,160	24,000	18,337	21,169
2039	2.23%	2,874	(745)	21,198	111,289	7,415	18,337	13,783	16,060
2040	0.00%	0	(1,853)	15,898	116,588	5,562	13,783	10,337	12,060
2041	0.00%	0	(1,853)	10,599	121,887	3,708	10,337	6,891	8,614
2042	0.00%	0	(1,853)	5,299	127,187	1,855	6,891	3,445	5,168
2043	0.00%	0	(1,853)	(0)	132,486	1	3,445	-1	1,722

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805.5
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	112,969	112,969	112,969
EQUITY AFUDC	12,366		
DEBT AFUDC	7,152	7,152	
CPI			15,867
TOTAL	132,486	120,120	128,836

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Building Envelope Program

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	258	13,923	0	14,181	0	0	581	5	586	(13,595)	(12,486)
2011	0	698	38,370	0	39,068	0	291	2,521	10	2,822	(36,246)	(43,057)
2012	0	832	46,268	0	47,099	0	1,075	5,595	22	6,692	(40,407)	(74,356)
2013	0	925	52,105	0	53,030	0	2,061	8,874	743	11,678	(41,352)	(103,772)
2014	0	922	52,477	0	53,399	0	3,063	12,663	1,143	16,869	(36,530)	(127,638)
2015	0	922	53,288	0	54,210	0	4,037	17,960	1,617	23,615	(30,595)	(145,995)
2016	0	649	37,869	0	38,518	0	4,968	25,803	2,178	32,948	(5,570)	(149,064)
2017	0	639	37,397	0	38,035	0	5,578	31,939	2,692	40,208	2,173	(147,965)
2018	0	334	19,216	0	19,550	0	6,139	36,634	3,157	45,930	26,380	(135,705)
2019	0	0	0	0	0	39,135	6,330	42,510	1,877	89,852	89,852	(97,354)
2020	0	21	980	0	1,001	36,379	6,147	44,199	1,394	88,119	87,118	(63,205)
2021	0	37	1,494	0	1,530	34,911	5,970	46,015	1,432	88,329	86,798	(31,958)
2022	0	38	1,544	0	1,582	34,698	5,799	47,697	1,477	89,672	88,090	(2,835)
2023	0	42	1,856	0	1,898	35,321	5,632	47,569	1,466	89,988	88,090	23,912
2024	0	17	701	0	718	35,715	5,469	49,377	1,512	92,073	91,355	49,386
2025	0	303	18,030	0	18,334	35,649	5,307	50,434	1,522	92,911	74,578	68,485
2026	0	863	51,506	0	52,369	35,892	5,147	50,576	1,501	93,116	40,747	78,068
2027	0	1,048	62,730	0	63,779	36,180	4,988	51,052	1,454	93,674	29,895	84,525
2028	0	1,181	70,840	0	72,021	36,011	4,829	51,971	1,572	94,383	22,363	88,961
2029	0	1,210	72,807	0	74,017	36,936	4,671	51,540	1,669	94,836	20,819	92,754
2030	0	1,326	77,611	0	78,937	36,947	4,514	52,591	1,631	95,683	16,746	95,555
2031	0	1,064	58,568	0	59,632	36,670	4,357	54,222	1,783	97,031	37,399	101,302
2032	0	1,064	58,249	0	59,313	37,818	4,206	53,210	1,870	97,104	37,791	106,635
2033	0	632	32,410	0	33,042	37,726	4,064	55,225	1,345	98,361	65,319	115,100
2034	0	142	3,616	0	3,757	39,482	3,933	54,016	1,241	98,672	94,915	126,396
2035	0	101	2,241	0	2,342	40,078	3,816	57,668	1,302	102,863	100,521	137,383
2036	0	49	993	0	1,042	39,704	3,711	60,503	1,321	105,239	104,197	147,843
2037	0	42	853	0	895	40,552	3,620	61,774	1,393	107,339	106,444	157,656
2038	0	37	737	0	773	39,402	3,539	64,320	1,455	108,717	107,943	166,795
2039	0	0	0	0	0	38,717	3,467	65,901	1,434	109,519	109,519	175,311
2040	0	474	27,719	0	28,193	40,396	3,400	67,236	1,472	112,503	84,310	181,332
2041	0	1,310	77,043	0	78,353	40,002	3,335	69,566	1,535	114,458	36,104	183,699
2042	0	1,581	93,382	0	94,963	39,301	3,270	71,955	3,127	117,653	22,690	185,066
2043	0	1,779	105,639	0	107,418	39,420	3,207	77,066	4,830	124,523	17,106	186,012
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	20,541	1,172,460	0	1,193,001	943,061	139,940	1,540,762	54,202	2,677,965	1,484,964	
NPV	0	6,104	346,640	0	352,744	170,195	38,791	316,140	13,629	538,756	186,012	

Discount Rate: %
Benefit/Cost Ratio (Col(11) / Col(6)) :

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM/METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Building Envelope Program

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	796	0	7,707	0	8,503	13,923	0	0	13,923	(5,421)	(4,978)
2011	3,750	0	20,591	0	24,341	38,370	0	0	38,370	(14,030)	(16,811)
2012	8,706	0	24,171	0	32,877	46,268	0	0	46,268	(13,391)	(27,184)
2013	14,809	0	26,538	0	41,347	52,105	0	0	52,105	(10,758)	(34,837)
2014	21,850	0	26,024	0	47,873	52,477	0	0	52,477	(4,604)	(37,845)
2015	29,138	0	25,707	0	54,845	53,288	0	0	53,288	1,557	(36,910)
2016	35,440	0	17,867	0	53,306	37,869	0	0	37,869	15,437	(28,404)
2017	41,259	0	17,216	0	58,475	37,397	0	0	37,397	21,078	(17,737)
2018	45,572	0	8,633	0	54,205	19,216	0	0	19,216	34,989	(1,476)
2019	48,228	0	0	0	48,228	0	0	0	0	48,228	19,108
2020	48,193	0	418	0	48,612	980	0	0	980	47,632	37,780
2021	49,147	0	557	0	49,704	1,494	0	0	1,494	48,210	55,135
2022	50,652	0	561	0	51,213	1,544	0	0	1,544	49,670	71,556
2023	52,261	0	713	0	52,973	1,856	0	0	1,856	51,118	87,077
2024	54,686	0	261	0	54,947	701	0	0	701	54,246	102,203
2025	56,609	0	6,896	0	63,505	18,030	0	0	18,030	45,474	113,849
2026	58,926	0	19,146	0	78,072	51,506	0	0	51,506	26,567	120,097
2027	62,145	0	22,686	0	84,831	62,730	0	0	62,730	22,100	124,871
2028	64,771	0	24,924	0	89,696	70,840	0	0	70,840	18,856	128,611
2029	67,792	0	24,924	0	92,717	72,807	0	0	72,807	19,910	132,238
2030	71,237	0	25,858	0	97,095	77,611	0	0	77,611	19,483	135,498
2031	74,609	0	19,042	0	93,652	58,568	0	0	58,568	35,083	140,888
2032	79,160	0	18,476	0	97,636	58,249	0	0	58,249	39,387	146,446
2033	86,448	0	10,057	0	96,505	32,410	0	0	32,410	64,096	154,753
2034	88,101	0	1,100	0	89,200	3,616	0	0	3,616	85,585	164,939
2035	91,722	0	661	0	92,383	2,241	0	0	2,241	90,142	174,792
2036	98,480	0	269	0	98,749	993	0	0	993	97,756	184,605
2037	103,871	0	225	0	104,096	833	0	0	833	103,244	194,123
2038	108,520	0	190	0	108,710	737	0	0	737	107,973	203,265
2039	113,626	0	0	0	113,626	0	0	0	0	113,626	212,100
2040	119,059	0	7,314	0	126,373	27,719	0	0	27,719	98,654	219,145
2041	125,511	0	19,703	0	145,214	77,043	0	0	77,043	68,170	223,615
2042	132,397	0	23,247	0	155,644	93,382	0	0	93,382	62,262	227,365
2043	139,747	0	25,637	0	165,384	105,639	0	0	105,639	59,746	230,670
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
NOM	2,247,219	0	427,318	0	2,674,537	1,172,460	0	0	1,172,460	1,502,076	
NPV	422,714	0	154,596	0	577,310	346,640	0	0	346,640	230,670	

In Service of Gen Unit:

2019

Discount Rate :

8.89 %

Benefit/Cost Ratio (Col(6) / Col(10))

1.67

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: **Business Building Envelope Program**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	258	7,707	696	0	8,660	581	0	0	5	586	(8,074)	(7,415)
2011	0	698	20,591	3,286	0	24,574	2,521	291	0	10	2,822	(21,752)	(25,762)
2012	0	831	24,171	7,638	0	32,641	5,595	1,075	0	22	6,692	(25,949)	(45,862)
2013	0	925	26,538	12,988	0	40,451	8,874	2,061	0	743	11,678	(28,773)	(66,330)
2014	0	922	26,024	19,167	0	46,112	12,663	3,063	0	1,143	16,869	(29,243)	(85,435)
2015	0	922	25,707	25,573	0	52,203	17,960	4,037	0	1,617	23,615	(28,588)	(102,587)
2016	0	649	17,867	31,064	0	49,580	25,803	4,968	0	2,178	32,948	(16,632)	(111,752)
2017	0	639	17,216	36,173	0	54,028	31,939	5,578	0	2,692	40,208	(13,819)	(118,745)
2018	0	334	8,633	39,911	0	48,878	36,634	6,139	0	3,157	45,930	(2,948)	(120,116)
2019	0	0	0	42,130	0	42,130	81,646	6,330	0	1,877	89,852	47,722	(99,747)
2020	0	21	418	42,055	0	42,495	80,578	6,147	0	1,394	88,119	45,624	(81,863)
2021	0	37	557	42,812	0	43,406	80,926	5,970	0	1,432	88,329	44,923	(65,691)
2022	0	38	561	44,040	0	44,640	82,395	5,799	0	1,477	89,672	45,032	(50,803)
2023	0	42	713	45,388	0	46,143	82,890	5,632	0	1,466	89,988	43,845	(37,491)
2024	0	17	261	47,421	0	47,699	85,092	5,469	0	1,512	92,073	44,374	(25,117)
2025	0	303	6,896	48,961	0	56,160	86,082	5,307	0	1,522	92,911	36,751	(15,705)
2026	0	863	19,146	50,891	0	70,900	86,468	5,147	0	1,501	93,116	22,216	(10,481)
2027	0	1,048	22,686	53,580	0	77,314	87,232	4,988	0	1,454	93,674	16,360	(6,947)
2028	0	1,181	24,924	55,782	0	81,887	87,982	4,829	0	1,572	94,383	12,497	(4,468)
2029	0	1,210	24,924	58,303	0	84,437	88,496	4,671	0	1,669	94,836	10,399	(2,574)
2030	0	1,326	25,858	61,181	0	88,364	89,538	4,514	0	1,631	95,683	7,318	(1,349)
2031	0	1,064	19,042	63,993	0	84,099	90,891	4,357	0	1,783	97,031	12,932	638
2032	0	1,064	18,476	67,810	0	87,350	91,028	4,206	0	1,870	97,104	9,753	2,014
2033	0	632	10,057	73,932	0	84,621	92,952	4,064	0	1,345	98,361	13,740	3,795
2034	0	142	1,100	75,337	0	76,578	93,498	3,933	0	1,241	98,672	22,094	6,424
2035	0	101	661	78,299	0	79,061	97,745	3,816	0	1,302	102,863	23,801	9,026
2036	0	49	269	83,939	0	84,258	100,207	3,711	0	1,321	105,239	20,982	11,132
2037	0	42	225	88,468	0	88,736	102,325	3,620	0	1,393	107,339	18,603	12,847
2038	0	37	190	92,335	0	92,561	103,722	3,539	0	1,455	108,717	16,156	14,215
2039	0	0	0	96,582	0	96,582	104,618	3,467	0	1,434	109,519	12,936	15,221
2040	0	474	7,314	101,100	0	108,888	107,631	3,400	0	1,472	112,503	3,615	15,479
2041	0	1,310	19,703	106,466	0	127,480	109,568	3,335	0	1,555	114,458	(13,022)	14,625
2042	0	1,581	23,247	112,194	0	137,021	111,255	3,270	0	3,127	117,653	(19,368)	13,459
2043	0	1,779	25,637	118,306	0	145,723	116,486	3,207	0	4,830	124,523	(21,200)	12,286
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
NOM.	0	20,541	427,318	1,927,803	0	2,375,661	2,483,823	139,940	0	54,202	2,677,965	302,304	
NPV	0	6,104	154,596	365,770	0	526,470	486,336	38,791	0	13,629	538,756	12,286	

Discount Rate 8.89 %

Benefit/Cost Ratio (Col(12) / Col(7)) : 1.02

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: **Business Heating, Ventilating and Air-Conditioning**

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPRECIATION \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	293,266	9,110	0	20,466	13,501	4,942	1,745	11,440	22	61,227	61,227	61,227	286,008
2020	281,803	8,754	0	19,666	9,277	4,736	1,788	11,440	3,744	59,406	54,558	115,785	293,158
2021	266,619	8,282	0	18,607	9,193	4,530	1,833	11,440	3,162	57,048	48,116	163,901	300,487
2022	252,016	7,829	0	17,588	9,086	4,324	1,879	11,440	2,629	54,775	42,429	206,330	307,999
2023	237,947	7,392	0	16,606	8,971	4,119	1,926	11,440	2,128	52,581	37,405	243,734	315,699
2024	224,378	6,970	0	15,659	8,835	3,913	1,974	11,440	1,669	50,460	32,966	276,701	323,592
2025	211,269	6,563	0	14,744	8,687	3,707	2,023	11,440	1,243	48,407	29,044	305,745	331,681
2026	198,586	6,169	0	13,859	8,524	3,501	2,074	11,440	850	46,417	25,577	331,321	339,974
2027	186,295	5,787	0	13,001	8,049	3,295	2,126	11,440	786	44,484	22,511	353,833	348,473
2028	174,069	5,407	0	12,148	7,515	3,089	2,179	11,440	785	42,563	19,781	373,614	357,185
2029	161,844	5,028	0	11,295	6,978	2,883	2,233	11,440	786	40,642	17,347	390,961	366,114
2030	149,617	4,648	0	10,441	6,443	2,677	2,289	11,440	785	38,723	15,179	406,140	375,267
2031	137,392	4,268	0	9,588	5,906	2,471	2,346	11,440	786	36,806	13,250	419,390	384,649
2032	125,166	3,888	0	8,735	5,371	2,265	2,405	11,440	785	34,890	11,535	430,925	394,265
2033	112,941	3,508	0	7,882	4,834	2,059	2,465	11,440	786	32,975	10,012	440,937	404,122
2034	100,714	3,129	0	7,029	4,300	1,853	2,527	11,440	785	31,062	8,662	449,599	414,225
2035	88,489	2,749	0	6,175	3,763	1,647	2,590	11,440	786	29,151	7,465	457,064	424,580
2036	76,263	2,369	0	5,322	3,228	1,441	2,655	11,440	785	27,241	6,407	463,471	435,195
2037	64,038	1,989	0	4,469	2,691	1,236	2,721	11,440	786	25,332	5,472	468,942	446,075
2038	51,811	1,609	0	3,616	2,156	1,030	2,789	11,440	785	23,426	4,647	473,589	457,227
2039	39,586	1,230	0	2,763	4,013	824	2,859	11,440	(1,608)	21,521	3,921	477,510	468,657
2040	29,753	924	0	2,076	5,976	618	2,930	11,440	(4,001)	19,964	3,340	480,850	480,374
2041	22,314	693	0	1,557	5,650	412	3,004	11,440	(4,001)	18,755	2,882	483,731	492,383
2042	14,875	462	0	1,038	5,324	206	3,079	11,440	(4,001)	17,548	2,476	486,208	504,693
2043	7,436	231	0	519	4,998	0	3,156	11,440	(4,001)	16,342	2,118	488,325	517,310

IN SERVICE COST (\$000)	286,008
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.03%
P/S	0%	0.00%
C/S	56%	12.50%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX	TAX	ACCUMULATED	BOOK	ACCUMULATED	BOOK	ACCUMULATED	DEFERRED	TOTAL	BOOK DEPR	(10)*(11)	SALVAGE	ANNUAL	ACCUMULATED
	DEPRECIATION	DEPRECIATION	TAX	DEPRECIATION	BOOK	DEPRECIATION	DEPRECIATION	TAX	EQUITY	RATE	TAX RATE	TAX RATE	DEFERRED TAX	DEFERRED
SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	AFUDC	MINUS 1/LIFE	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	10,430	10,430	11,440	11,440	10,372	10,372	22	26,696	0	0	0	22	(7,236)
2020	7.22%	20,078	30,508	11,440	22,881	10,372	20,745	3,744	26,696	0	0	0	3,744	(3,492)
2021	6.68%	18,571	49,078	11,440	34,321	10,372	31,117	3,162	26,696	0	0	0	3,162	(329)
2022	6.18%	17,188	66,267	11,440	45,761	10,372	41,490	2,629	26,696	0	0	0	2,629	2,300
2023	5.71%	15,889	82,156	11,440	57,202	10,372	51,862	2,128	26,696	0	0	0	2,128	4,428
2024	5.29%	14,699	96,855	11,440	68,642	10,372	62,235	1,669	26,696	0	0	0	1,669	6,097
2025	4.89%	13,595	110,450	11,440	80,082	10,372	72,607	1,243	26,696	0	0	0	1,243	7,340
2026	4.52%	12,577	123,027	11,440	91,523	10,372	82,980	850	26,696	0	0	0	850	8,190
2027	4.46%	12,410	135,437	11,440	102,963	10,372	93,352	786	26,696	0	0	0	786	8,976
2028	4.46%	12,407	147,844	11,440	114,403	10,372	103,725	785	26,696	0	0	0	785	9,761
2029	4.46%	12,410	160,254	11,440	125,843	10,372	114,097	786	26,696	0	0	0	786	10,547
2030	4.46%	12,407	172,661	11,440	137,284	10,372	124,470	785	26,696	0	0	0	785	11,332
2031	4.46%	12,410	185,071	11,440	148,724	10,372	134,842	786	26,696	0	0	0	786	12,118
2032	4.46%	12,407	197,478	11,440	160,164	10,372	145,215	785	26,696	0	0	0	785	12,903
2033	4.46%	12,410	209,889	11,440	171,605	10,372	155,587	786	26,696	0	0	0	786	13,689
2034	4.46%	12,407	222,296	11,440	183,045	10,372	165,960	785	26,696	0	0	0	785	14,474
2035	4.46%	12,410	234,706	11,440	194,485	10,372	176,332	786	26,696	0	0	0	786	15,260
2036	4.46%	12,407	247,113	11,440	205,926	10,372	186,705	785	26,696	0	0	0	785	16,045
2037	4.46%	12,410	259,523	11,440	217,366	10,372	197,077	786	26,696	0	0	0	786	16,831
2038	4.46%	12,407	271,930	11,440	228,806	10,372	207,450	785	26,696	0	0	0	785	17,616
2039	2.23%	6,205	278,135	11,440	240,247	10,372	217,822	(1,608)	26,696	0	0	0	(1,608)	16,008
2040	0.00%	0	278,135	11,440	251,687	10,372	228,195	(4,001)	26,696	0	0	0	(4,001)	12,007
2041	0.00%	0	278,135	11,440	263,127	10,372	238,567	(4,001)	26,696	0	0	0	(4,001)	8,006
2042	0.00%	0	278,135	11,440	274,568	10,372	248,940	(4,001)	26,696	0	0	0	(4,001)	4,004
2043	0.00%	0	278,135	11,440	286,008	10,372	259,312	(4,001)	26,696	0	0	0	(4,001)	3

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(7,258)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	26,696
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

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page 4b

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PSC FORM CE 1.1A

PROGRAM METHOD SELECTED: REV_REQ

PAGE 2b OF 2

PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
				END OF YEAR NET			BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	YEAR RATE BASE \$(000)	YEAR RATE BASE \$(000)	YEAR RATE BASE \$(000)
2019	3.75%	10,430	22	274,568	11,440	(7,236)	293,266	281,803	287,535
2020	7.22%	20,078	3,744	263,127	22,881	(3,492)	281,803	266,619	274,211
2021	6.68%	18,571	3,162	251,687	34,321	(329)	266,619	252,016	259,318
2022	6.18%	17,188	2,629	240,247	45,761	2,300	252,016	237,947	244,982
2023	5.71%	15,889	2,128	228,806	57,202	4,428	237,947	224,378	231,163
2024	5.29%	14,699	1,669	217,366	68,642	6,097	224,378	211,269	217,824
2025	4.89%	13,595	1,243	205,926	80,082	7,340	211,269	198,586	204,928
2026	4.52%	12,577	850	194,485	91,523	8,190	198,586	186,295	192,441
2027	4.46%	12,410	786	183,045	102,963	8,976	186,295	174,069	180,182
2028	4.46%	12,407	785	171,605	114,403	9,761	174,069	161,844	167,956
2029	4.46%	12,410	786	160,164	125,843	10,547	161,844	149,617	155,731
2030	4.46%	12,407	785	148,724	137,284	11,332	149,617	137,392	143,505
2031	4.46%	12,410	786	137,284	148,724	12,118	137,392	125,166	131,279
2032	4.46%	12,407	785	125,843	160,164	12,903	125,166	112,941	119,053
2033	4.46%	12,410	786	114,403	171,605	13,689	112,941	100,714	106,827
2034	4.46%	12,407	785	102,963	183,045	14,474	100,714	88,489	94,602
2035	4.46%	12,410	786	91,523	194,485	15,260	88,489	76,263	82,376
2036	4.46%	12,407	785	80,082	205,926	16,045	76,263	64,038	70,150
2037	4.46%	12,410	786	68,642	217,366	16,831	64,038	51,811	57,924
2038	4.46%	12,407	785	57,202	228,806	17,616	51,811	39,586	45,699
2039	2.23%	6,205	(1,608)	45,761	240,247	16,008	39,586	29,753	34,670
2040	0.00%	0	(4,001)	34,321	251,687	12,007	29,753	22,314	26,034
2041	0.00%	0	(4,001)	22,881	263,127	8,006	22,314	14,875	18,595
2042	0.00%	0	(4,001)	11,440	274,568	4,004	14,875	7,436	11,155
2043	0.00%	0	(4,001)	0	286,008	3	7,436	-3	3,716

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(2) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	243,873	243,873	243,873
EQUITY AFUDC	26,696		
DEBT AFUDC	15,438	15,438	
CPI			34,253
TOTAL	286,008	259,312	278,127

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	804	31,520	0	32,324	0	0	2,027	9	2,035	(30,289)	(27,817)
2011	0	1,173	39,572	0	40,746	0	751	6,945	15	7,710	(33,036)	(55,680)
2012	0	1,441	50,600	0	52,041	0	1,900	13,618	33	15,551	(36,490)	(83,945)
2013	0	1,670	56,966	0	58,636	0	3,449	22,311	2,049	27,808	(30,828)	(105,875)
2014	0	1,783	58,758	0	60,542	0	5,086	32,539	3,159	40,785	(19,757)	(118,783)
2015	0	1,640	50,135	0	51,774	0	6,742	44,604	4,415	55,761	3,986	(116,391)
2016	0	1,488	40,069	0	41,557	0	8,093	60,545	5,795	74,434	32,876	(98,275)
2017	0	386	18,118	0	18,504	0	9,156	71,517	6,912	87,585	69,081	(63,317)
2018	0	387	18,336	0	18,723	0	9,249	79,228	7,749	96,226	77,503	(27,297)
2019	0	0	0	0	0	58,972	9,315	89,647	6,021	163,955	163,955	42,683
2020	0	0	0	0	0	54,818	9,047	93,985	5,555	163,406	163,406	106,735
2021	0	0	0	0	0	52,607	8,788	97,981	5,904	165,279	165,279	166,235
2022	0	0	0	0	0	52,286	8,536	100,878	6,506	168,206	168,206	221,846
2023	0	0	0	0	0	53,225	8,291	102,048	6,779	170,342	170,342	273,566
2024	0	0	0	0	0	53,819	8,049	105,934	7,438	175,240	175,240	322,432
2025	0	464	20,123	0	20,587	53,718	7,810	109,010	7,985	178,524	157,936	362,877
2026	0	723	30,889	0	31,612	54,085	7,572	110,541	8,282	180,480	148,868	397,889
2027	0	687	31,812	0	32,500	54,519	7,336	112,712	8,872	183,439	150,940	430,491
2028	0	746	34,785	0	35,530	54,264	7,100	115,394	9,690	186,447	150,917	460,428
2029	0	726	34,016	0	34,742	55,688	6,865	117,179	10,741	190,473	155,731	488,798
2030	0	1,234	50,153	0	51,387	55,674	6,630	120,347	11,369	194,021	142,634	512,662
2031	0	1,521	50,461	0	51,982	55,257	6,399	124,218	12,399	198,273	146,291	535,140
2032	0	1,889	62,570	0	64,458	56,988	6,177	125,488	13,372	202,024	137,566	554,552
2033	0	2,204	69,946	0	72,150	56,849	5,969	129,708	13,522	206,048	133,898	571,905
2034	0	2,100	57,797	0	59,897	59,494	5,780	130,801	14,356	210,431	150,534	589,821
2035	0	2,187	58,087	0	60,273	60,392	5,612	137,625	15,492	219,121	158,848	607,184
2036	0	1,968	42,390	0	44,358	59,829	5,466	143,446	16,629	225,369	181,011	625,354
2037	0	287	11,983	0	12,270	61,107	5,340	147,773	17,942	232,161	219,891	645,626
2038	0	281	11,993	0	12,274	59,374	5,229	154,004	19,307	237,914	225,640	664,730
2039	0	0	0	0	0	58,342	5,126	158,789	20,679	242,936	242,936	683,620
2040	0	673	29,144	0	29,817	60,871	5,027	163,675	22,240	251,813	221,996	699,473
2041	0	1,048	44,737	0	45,784	60,278	4,931	169,918	23,880	259,007	213,223	713,456
2042	0	996	46,074	0	47,069	59,221	4,836	176,362	27,867	268,286	221,217	726,780
2043	0	1,080	50,379	0	51,459	59,402	4,741	186,048	32,186	282,378	230,919	739,553
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	31,586	1,101,411	0	1,132,997	1,421,078	210,396	3,556,844	375,151	5,563,468	4,430,471	
NPV	0	10,059	346,885	0	356,944	256,464	59,768	716,784	63,481	1,096,497	739,553	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)):

3.07

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM/METHOD SELECTED: REV. REQ
PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	2,470	0	21,679	0	24,149	31,520	0	0	31,520	(7,371)	(6,770)
2011	9,051	0	23,443	0	32,494	39,572	0	0	39,572	(7,078)	(12,740)
2012	19,843	0	26,256	0	46,100	50,600	0	0	50,600	(4,500)	(16,225)
2013	34,958	0	28,400	0	63,358	56,966	0	0	56,966	6,392	(11,678)
2014	53,066	0	28,499	0	81,564	58,758	0	0	58,758	22,806	3,221
2015	71,076	0	23,949	0	95,025	50,135	0	0	50,135	44,890	30,155
2016	85,323	0	22,155	0	107,478	40,069	0	0	40,069	67,409	67,299
2017	93,978	0	12,590	0	106,567	18,118	0	0	18,118	88,449	112,059
2018	98,293	0	12,496	0	110,788	18,336	0	0	18,336	92,452	155,026
2019	103,234	0	0	0	103,234	0	0	0	0	103,234	199,088
2020	103,455	0	0	0	103,455	0	0	0	0	103,455	239,641
2021	106,106	0	0	0	106,106	0	0	0	0	106,106	277,838
2022	110,115	0	0	0	110,115	0	0	0	0	110,115	314,244
2023	114,080	0	0	0	114,080	0	0	0	0	114,080	348,882
2024	120,053	0	0	0	120,053	0	0	0	0	120,053	382,358
2025	125,361	0	9,978	0	135,339	20,123	0	0	20,123	115,216	411,864
2026	131,144	0	13,767	0	144,911	30,889	0	0	30,889	114,022	438,681
2027	139,151	0	14,249	0	153,401	31,812	0	0	31,812	121,589	464,943
2028	145,614	0	15,085	0	160,699	34,785	0	0	34,785	125,914	489,920
2029	153,159	0	14,509	0	167,667	34,016	0	0	34,016	133,652	514,268
2030	161,722	0	21,650	0	183,371	50,153	0	0	50,153	133,219	536,556
2031	170,158	0	19,262	0	189,420	50,461	0	0	50,461	138,958	557,908
2032	181,335	0	19,720	0	201,055	62,570	0	0	62,570	138,485	577,450
2033	199,170	0	21,900	0	220,170	69,946	0	0	69,946	150,224	596,918
2034	203,053	0	13,990	0	217,043	57,797	0	0	57,797	159,246	615,871
2035	212,644	0	14,001	0	226,645	58,087	0	0	58,087	168,558	634,295
2036	229,511	0	12,569	0	242,080	42,390	0	0	42,390	199,691	654,341
2037	242,689	0	4,876	0	247,565	11,983	0	0	11,983	235,582	676,059
2038	254,423	0	4,810	0	259,233	11,993	0	0	11,993	247,241	696,992
2039	267,288	0	0	0	267,288	0	0	0	0	267,288	717,775
2040	281,002	0	9,978	0	290,981	29,144	0	0	29,144	261,837	736,473
2041	297,268	0	13,767	0	311,035	44,737	0	0	44,737	266,298	753,937
2042	314,636	0	14,249	0	328,886	46,074	0	0	46,074	282,812	770,971
2043	333,184	0	15,085	0	348,268	50,379	0	0	50,379	297,890	787,448
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
NOM	5,167,610	0	452,013	0	5,619,623	1,101,411	0	0	1,101,411	4,518,212	
NPV	961,521	0	172,812	0	1,134,333	346,885	0	0	346,885	787,448	

In Service of Gen Unit:
Discount Rate :
Benefit/Cost Ratio (Col(6) / Col(10))

2019
8.89 %
3.27

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED	UTILITY		REVENUE	OTHER	TOTAL	AVOIDED GFN	AVOIDED					CUMULATIVE
	SUPPLY	PROGRAM	INCENTIVES	LOSSES	COSTS	COSTS	UNIT & FUEL	T&D	REVENUE	OTHER	TOTAL	NET	DISCOUNTED
	COSTS	COSTS					BENEFITS	BENEFITS	GAINS	BENEFITS	BENEFITS	BENEFITS	NET BENEFITS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	804	21,679	2,141	0	24,624	2,027	0	0	9	2,035	(22,588)	(20,745)
2011	0	1,173	23,443	7,849	0	32,466	6,945	751	0	15	7,710	(24,756)	(41,625)
2012	0	1,441	26,256	17,181	0	44,878	13,618	1,900	0	33	15,551	(29,328)	(64,342)
2013	0	1,670	28,400	30,182	0	60,252	22,311	3,449	0	2,049	27,808	(32,444)	(87,421)
2014	0	1,783	28,499	45,771	0	76,053	32,539	5,086	0	3,139	40,785	(35,268)	(110,462)
2015	0	1,640	23,949	61,292	0	86,880	44,604	6,742	0	4,415	55,761	(31,120)	(129,134)
2016	0	1,488	22,155	73,538	0	97,182	60,545	8,093	0	5,795	74,434	(22,748)	(141,668)
2017	0	386	12,590	81,073	0	94,048	71,517	9,156	0	6,912	87,585	(6,464)	(144,939)
2018	0	387	12,496	84,754	0	97,636	79,228	9,249	0	7,749	96,226	(1,410)	(145,595)
2019	0	0	0	88,847	0	88,847	148,620	9,315	0	6,021	163,955	75,109	(113,537)
2020	0	0	0	88,960	0	88,960	148,803	9,047	0	5,555	163,406	74,445	(84,355)
2021	0	0	0	91,108	0	91,108	150,587	8,788	0	5,904	165,279	74,171	(57,654)
2022	0	0	0	94,404	0	94,404	153,164	8,536	0	6,506	168,206	73,803	(33,254)
2023	0	0	0	97,714	0	97,714	155,272	8,291	0	6,779	170,342	72,628	(11,202)
2024	0	0	0	102,702	0	102,702	159,753	8,049	0	7,438	175,240	72,538	9,025
2025	0	464	9,978	107,023	0	117,465	162,728	7,810	0	7,985	178,524	61,058	24,661
2026	0	723	13,767	111,833	0	126,323	164,626	7,572	0	8,282	180,480	54,157	37,398
2027	0	687	14,249	118,505	0	133,442	167,231	7,336	0	8,872	183,439	49,997	48,197
2028	0	746	15,085	123,902	0	139,733	169,658	7,100	0	9,690	186,447	46,714	57,464
2029	0	726	14,509	130,184	0	145,419	172,867	6,865	0	10,741	190,473	45,053	65,672
2030	0	1,234	21,650	137,321	0	160,204	176,021	6,630	0	11,369	194,021	33,816	71,329
2031	0	1,521	19,262	144,343	0	165,126	179,475	6,399	0	12,399	198,273	33,147	76,422
2032	0	1,889	19,720	153,680	0	175,289	182,476	6,177	0	13,372	202,024	26,735	80,195
2033	0	2,204	21,090	168,591	0	191,795	186,557	5,969	0	13,522	206,048	14,253	82,042
2034	0	2,100	13,990	171,865	0	187,956	190,296	5,780	0	14,356	210,431	22,476	84,717
2035	0	2,187	14,001	179,761	0	195,948	198,017	5,612	0	15,492	219,121	23,174	87,250
2036	0	1,968	12,569	193,807	0	208,344	203,275	5,466	0	16,629	225,369	17,025	88,959
2037	0	287	4,876	204,827	0	209,990	208,879	5,340	0	17,942	232,161	22,172	91,003
2038	0	281	4,810	214,577	0	219,668	213,378	5,229	0	19,307	237,914	18,246	92,548
2039	0	0	0	225,270	0	225,270	217,131	5,126	0	20,679	242,936	17,666	93,922
2040	0	673	9,978	236,665	0	247,316	224,546	5,027	0	22,240	251,813	4,497	94,243
2041	0	1,048	13,767	250,183	0	264,998	230,195	4,931	0	23,880	259,007	(5,991)	93,850
2042	0	996	14,249	264,616	0	279,862	235,583	4,836	0	27,867	268,286	(11,576)	93,153
2043	0	1,080	15,085	280,028	0	296,193	245,450	4,741	0	32,186	282,378	(13,816)	92,389
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
NOM.	0	31,586	452,013	4,384,495	0	4,868,094	4,977,922	210,396	0	375,151	5,563,468	695,374	
NPV	0	10,059	172,812	821,237	0	1,004,109	973,248	59,768	0	63,481	1,096,497	92,389	

Discount Rate 8.89 %
 Benefit/Cost Ratio (Col(12) / Col(7)): 1.09

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: **Business Lighting**

YEAR	(2) BEG-YEAR RATE BASE \$(000)	(3) DEBT \$(000)	(4) PREFERRED STOCK \$(000)	(5) COMMON EQUITY \$(000)	(6) INCOME TAXES \$(000)	(7) PROPERTY TAX \$(000)	(8) PROPERTY INSURANCE \$(000)	(9) DEPREC. \$(000)	(10) DEFERRED TAXES \$(000)	(11) TOTAL FIXED CHARGES \$(000)	(12) PRESENT WORTH FIXED CHARGES \$(000)		(13) CUMULATIVE PW FIXED CHARGES \$(000)		(14) REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)	
											FIXED CHARGES \$(000)	FIXED CHARGES \$(000)	FIXED CHARGES \$(000)	FIXED CHARGES \$(000)		
2019	93,054	2,891	0	6,494	4,284	1,568	554	3,630	7	19,427	19,427	19,427			90,751	
2020	89,417	2,778	0	6,240	2,944	1,503	567	3,630	1,188	18,850	17,311	36,739			93,019	
2021	84,599	2,628	0	5,904	2,917	1,437	582	3,630	1,003	18,102	15,267	52,006			95,345	
2022	79,965	2,484	0	5,581	2,883	1,372	596	3,630	834	17,380	13,463	65,469			97,729	
2023	75,501	2,345	0	5,269	2,846	1,307	611	3,630	675	16,684	11,869	77,337			100,172	
2024	71,196	2,212	0	4,969	2,803	1,241	626	3,630	530	16,011	10,460	87,798			102,676	
2025	67,036	2,082	0	4,678	2,756	1,176	642	3,630	394	15,360	9,216	97,013			105,243	
2026	63,012	1,957	0	4,397	2,705	1,111	658	3,630	270	14,728	8,116	105,129			107,874	
2027	59,112	1,836	0	4,125	2,554	1,045	674	3,630	249	14,115	7,143	112,272			110,571	
2028	55,232	1,716	0	3,855	2,384	980	691	3,630	249	13,505	6,277	118,548			113,335	
2029	51,353	1,595	0	3,584	2,214	915	709	3,630	249	12,896	5,504	124,052			116,169	
2030	47,474	1,475	0	3,313	2,044	849	726	3,630	249	12,287	4,816	128,869			119,073	
2031	43,595	1,354	0	3,042	1,874	784	745	3,630	249	11,679	4,204	133,073			122,050	
2032	39,715	1,234	0	2,772	1,704	719	763	3,630	249	11,071	3,660	136,733			125,101	
2033	35,836	1,113	0	2,501	1,534	653	782	3,630	249	10,463	3,177	139,910			128,228	
2034	31,957	993	0	2,230	1,364	588	802	3,630	249	9,856	2,748	142,658			131,434	
2035	28,078	872	0	1,959	1,194	523	822	3,630	249	9,250	2,369	145,027			134,720	
2036	24,198	752	0	1,689	1,024	457	842	3,630	249	8,644	2,033	147,060			138,088	
2037	20,319	631	0	1,418	854	392	863	3,630	249	8,038	1,736	148,796			141,540	
2038	16,440	511	0	1,147	684	327	885	3,630	249	7,433	1,474	150,270			145,079	
2039	12,561	390	0	877	1,273	261	907	3,630	(510)	6,829	1,244	151,514			148,706	
2040	9,441	293	0	659	1,896	196	930	3,630	(1,270)	6,334	1,060	152,574			152,423	
2041	7,080	220	0	494	1,793	131	953	3,630	(1,270)	5,951	914	153,489			156,234	
2042	4,720	147	0	329	1,689	65	977	3,630	(1,270)	5,568	786	154,274			160,140	
2043	2,359	73	0	165	1,586	(0)	1,001	3,630	(1,270)	5,185	672	154,946			164,143	

IN SERVICE COST (\$000)	90,751
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.03%
P/S	0%	0.00%
C/S	56%	12.50%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Business Lighting**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX	TAX	ACCUMULATED	BOOK	ACCUMULATED	BOOK	ACCUMULATED	DEFERRED	TOTAL	BOOK DEPR	(10)*(11)	SALVAGE	ANNUAL	ACCUMULATED
	DEPRECIATION	DEPRECIATION	TAX	DEPRECIATION	BOOK	BOOK	DEPRECIATION	TAX	EQUITY	DEPR	TAX RATE	TAX RATE	DEFERRED TAX	DEFERRED
	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	DEFERRED TAX	DEFERRED TAX	AFUDC	RATE	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	3,309	3,309	3,630	3,630	3,291	3,291	7	8,471	0	0	0	7	(2,296)
2020	7.22%	6,371	9,680	3,630	7,260	3,291	6,582	1,188	8,471	0	0	0	1,188	(1,108)
2021	6.68%	5,892	15,573	3,630	10,890	3,291	9,874	1,003	8,471	0	0	0	1,003	(105)
2022	6.18%	5,454	21,026	3,630	14,520	3,291	13,165	834	8,471	0	0	0	834	730
2023	5.71%	5,042	26,068	3,630	18,150	3,291	16,456	675	8,471	0	0	0	675	1,405
2024	5.29%	4,664	30,732	3,630	21,780	3,291	19,747	530	8,471	0	0	0	530	1,935
2025	4.89%	4,314	35,046	3,630	25,410	3,291	23,038	394	8,471	0	0	0	394	2,329
2026	4.52%	3,991	39,037	3,630	29,040	3,291	26,330	270	8,471	0	0	0	270	2,599
2027	4.46%	3,938	42,974	3,630	32,670	3,291	29,621	249	8,471	0	0	0	249	2,848
2028	4.46%	3,937	46,911	3,630	36,300	3,291	32,912	249	8,471	0	0	0	249	3,097
2029	4.46%	3,938	50,849	3,630	39,930	3,291	36,203	249	8,471	0	0	0	249	3,347
2030	4.46%	3,937	54,786	3,630	43,560	3,291	39,494	249	8,471	0	0	0	249	3,596
2031	4.46%	3,938	58,723	3,630	47,190	3,291	42,786	249	8,471	0	0	0	249	3,845
2032	4.46%	3,937	62,660	3,630	50,820	3,291	46,077	249	8,471	0	0	0	249	4,094
2033	4.46%	3,938	66,598	3,630	54,450	3,291	49,368	249	8,471	0	0	0	249	4,343
2034	4.46%	3,937	70,535	3,630	58,080	3,291	52,659	249	8,471	0	0	0	249	4,593
2035	4.46%	3,938	74,472	3,630	61,710	3,291	55,950	249	8,471	0	0	0	249	4,842
2036	4.46%	3,937	78,409	3,630	65,341	3,291	59,242	249	8,471	0	0	0	249	5,091
2037	4.46%	3,938	82,347	3,630	68,971	3,291	62,533	249	8,471	0	0	0	249	5,340
2038	4.46%	3,937	86,284	3,630	72,601	3,291	65,824	249	8,471	0	0	0	249	5,589
2039	2.23%	1,969	88,253	3,630	76,231	3,291	69,115	(510)	8,471	0	0	0	(510)	5,079
2040	0.00%	0	88,253	3,630	79,861	3,291	72,406	(1,270)	8,471	0	0	0	(1,270)	3,810
2041	0.00%	0	88,253	3,630	83,491	3,291	75,698	(1,270)	8,471	0	0	0	(1,270)	2,540
2042	0.00%	0	88,253	3,630	87,121	3,291	78,989	(1,270)	8,471	0	0	0	(1,270)	1,271
2043	0.00%	0	88,253	3,630	90,751	3,291	82,280	(1,270)	8,471	0	0	0	(1,270)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,303)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	8,471
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Business Lighting

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
				END OF YEAR NET			BEGINNING	ENDING OF	
	TAX DEPRECIATION	TAX DEPRECIATION	DEFERRED TAX	PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	YEAR RATE BASE	YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	3,309	7	87,121	3,630	(2,296)	93,054	89,417	91,235
2020	7.22%	6,371	1,188	83,491	7,260	(1,108)	89,417	84,599	87,008
2021	6.68%	5,892	1,003	79,861	10,890	(105)	84,599	79,965	82,282
2022	6.18%	5,454	834	76,231	14,520	730	79,965	75,501	77,733
2023	5.71%	5,042	675	72,601	18,150	1,405	75,501	71,196	73,348
2024	5.29%	4,664	530	68,971	21,780	1,935	71,196	67,036	69,116
2025	4.89%	4,314	394	65,341	25,410	2,329	67,036	63,012	65,024
2026	4.52%	3,991	270	61,710	29,040	2,599	63,012	59,112	61,062
2027	4.46%	3,938	249	58,080	32,670	2,848	59,112	55,232	57,172
2028	4.46%	3,937	249	54,450	36,300	3,097	55,232	51,353	53,293
2029	4.46%	3,938	249	50,820	39,930	3,347	51,353	47,474	49,414
2030	4.46%	3,937	249	47,190	43,560	3,596	47,474	43,595	45,534
2031	4.46%	3,938	249	43,560	47,190	3,845	43,595	39,715	41,655
2032	4.46%	3,937	249	39,930	50,820	4,094	39,715	35,836	37,776
2033	4.46%	3,938	249	36,300	54,450	4,343	35,836	31,957	33,897
2034	4.46%	3,937	249	32,670	58,080	4,593	31,957	28,078	30,017
2035	4.46%	3,938	249	29,040	61,710	4,842	28,078	24,198	26,138
2036	4.46%	3,937	249	25,410	65,341	5,091	24,198	20,319	22,259
2037	4.46%	3,938	249	21,780	68,971	5,340	20,319	16,440	18,379
2038	4.46%	3,937	249	18,150	72,601	5,589	16,440	12,561	14,500
2039	2.23%	1,969	(510)	14,520	76,231	5,079	12,561	9,441	11,001
2040	0.00%	0	(1,270)	10,890	79,861	3,810	9,441	7,080	8,261
2041	0.00%	0	(1,270)	7,260	83,491	2,540	7,080	4,720	5,900
2042	0.00%	0	(1,270)	3,630	87,121	1,271	4,720	2,359	3,540
2043	0.00%	0	(1,270)	(0)	90,751	1	2,359	-1	1,179

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805.5
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	77,381	77,381	77,381
EQUITY AFUDC	8,471		
DEBT AFUDC	4,899	4,899	
CPI			10,869
TOTAL	90,751	82,280	88,250

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
 PROGRAM METHOD SELECTED: REV_RRQ
 PROGRAM NAME: **Business Lighting**

PSC FORM CE 2.3
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	118	6,670	0	6,788	0	0	669	3	672	(6,115)	(5,616)
2011	0	219	13,752	0	13,971	0	244	2,466	7	2,718	(11,254)	(15,108)
2012	0	232	13,683	0	13,915	0	694	4,827	14	5,336	(8,379)	(21,599)
2013	0	245	13,319	0	13,564	0	1,194	7,452	676	9,322	(4,242)	(24,616)
2014	0	255	11,913	0	12,168	0	1,677	10,453	1,007	13,137	968	(23,984)
2015	0	221	8,409	0	8,629	0	2,163	14,110	1,380	17,653	9,024	(18,570)
2016	0	238	9,184	0	9,423	0	2,568	19,358	1,813	23,740	14,317	(10,681)
2017	0	267	10,285	0	10,552	0	2,951	24,272	2,289	29,513	18,961	(1,085)
2018	0	308	11,814	0	12,122	0	3,387	29,821	2,850	36,059	23,937	10,040
2019	0	28	1,121	0	1,148	23,338	3,857	35,661	2,327	65,183	64,055	37,371
2020	0	28	1,149	0	1,177	21,694	3,747	37,232	2,140	64,812	63,635	62,315
2021	0	5	194	0	198	20,818	3,638	38,865	2,246	65,568	65,369	85,847
2022	0	30	1,207	0	1,237	20,692	3,533	39,876	2,471	66,571	65,335	107,448
2023	0	79	3,013	0	3,092	21,063	3,431	40,151	2,571	67,216	64,124	126,917
2024	0	88	3,256	0	3,344	21,298	3,331	41,586	2,820	69,036	65,692	145,235
2025	0	100	3,698	0	3,798	21,258	3,233	42,715	3,022	70,228	66,429	162,247
2026	0	115	4,196	0	4,311	21,403	3,136	43,202	3,122	70,863	66,553	177,900
2027	0	114	4,226	0	4,339	21,575	3,040	43,930	3,333	71,878	67,539	192,488
2028	0	161	6,093	0	6,254	21,474	2,944	44,895	3,632	72,946	66,692	205,717
2029	0	161	6,153	0	6,314	22,038	2,849	45,370	4,014	74,271	67,957	218,097
2030	0	278	14,206	0	14,484	22,032	2,754	46,532	4,237	75,555	61,071	228,315
2031	0	439	25,542	0	25,981	21,867	2,660	48,026	4,615	77,168	51,186	236,180
2032	0	311	20,230	0	20,541	22,552	2,569	48,283	4,970	78,375	57,833	244,341
2033	0	284	17,805	0	18,090	22,497	2,483	49,979	4,988	79,948	61,858	252,357
2034	0	317	16,235	0	16,552	23,544	2,404	50,153	5,283	81,385	64,833	260,073
2035	0	236	9,072	0	9,308	23,900	2,331	52,866	5,698	84,794	75,487	268,324
2036	0	298	11,324	0	11,622	23,677	2,265	55,189	6,111	87,241	75,619	275,915
2037	0	334	12,591	0	12,925	24,182	2,205	56,783	6,588	89,758	76,833	282,998
2038	0	397	14,857	0	15,254	23,496	2,151	59,173	7,083	91,904	76,650	289,488
2039	0	120	4,250	0	4,370	23,088	2,104	60,964	7,569	93,725	89,354	296,436
2040	0	179	6,543	0	6,722	24,089	2,062	62,707	8,136	96,994	90,272	302,882
2041	0	203	7,360	0	7,562	23,854	2,023	65,042	8,731	99,651	92,088	308,922
2042	0	199	7,228	0	7,426	23,436	1,984	67,482	10,252	103,154	95,727	314,687
2043	0	236	8,878	0	9,114	23,507	1,945	71,420	11,900	108,772	99,658	320,200
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	6,842	309,457	0	316,299	562,375	83,556	1,361,512	137,900	2,145,343	1,829,044	
NPV	0	1,990	94,929	0	96,919	101,493	22,735	269,861	23,030	417,119	320,200	

Discount Rate: 8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)): 4.30

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Business Lighting**

PSC FORM CE 2.4
PAGE 1 OF 1

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	893	0	2,964	0	3,857	6,670	0	0	6,670	(2,813)	(2,584)
2011	3,350	0	6,272	0	9,821	13,752	0	0	13,752	(3,931)	(5,899)
2012	7,377	0	5,757	0	13,134	13,683	0	0	13,683	(549)	(6,325)
2013	11,801	0	5,077	0	16,878	13,319	0	0	13,319	3,558	(3,794)
2014	16,962	0	4,066	0	21,028	11,913	0	0	11,913	9,115	2,161
2015	22,207	0	1,710	0	23,917	8,409	0	0	8,409	15,509	11,466
2016	27,118	0	1,893	0	29,011	9,184	0	0	9,184	19,826	22,391
2017	32,531	0	2,059	0	34,590	10,285	0	0	10,285	24,305	34,691
2018	38,332	0	2,275	0	40,608	11,814	0	0	11,814	28,794	48,073
2019	42,506	0	284	0	42,790	1,121	0	0	1,121	41,669	65,858
2020	42,538	0	284	0	42,822	1,149	0	0	1,149	41,673	82,193
2021	43,510	0	48	0	43,557	194	0	0	194	43,364	97,804
2022	45,006	0	284	0	45,290	1,207	0	0	1,207	44,083	112,378
2023	46,537	0	590	0	47,126	3,013	0	0	3,013	44,114	125,772
2024	48,843	0	578	0	49,421	3,256	0	0	3,256	46,165	138,645
2025	50,795	0	630	0	51,425	3,698	0	0	3,698	47,727	150,868
2026	53,014	0	687	0	53,702	4,196	0	0	4,196	49,506	162,511
2027	56,093	0	541	0	56,634	4,226	0	0	4,226	52,408	173,831
2028	58,589	0	846	0	59,435	6,093	0	0	6,093	53,341	184,412
2029	61,484	0	834	0	62,318	6,153	0	0	6,153	56,166	194,644
2030	64,777	0	3,266	0	68,044	14,206	0	0	14,206	53,838	203,651
2031	68,013	0	6,611	0	74,624	23,542	0	0	23,542	49,081	211,193
2032	72,333	0	5,437	0	77,770	20,230	0	0	20,230	57,540	219,312
2033	79,240	0	4,465	0	83,705	17,805	0	0	17,805	65,899	227,853
2034	80,771	0	3,629	0	84,400	16,235	0	0	16,235	68,165	235,965
2035	84,360	0	1,365	0	85,724	9,072	0	0	9,072	76,652	244,344
2036	90,834	0	1,629	0	92,463	11,324	0	0	11,324	81,139	252,489
2037	95,940	0	1,723	0	97,663	12,591	0	0	12,591	85,072	260,332
2038	100,422	0	1,938	0	102,361	14,857	0	0	14,857	87,503	267,740
2039	105,340	0	451	0	105,792	4,250	0	0	4,250	101,542	275,636
2040	110,579	0	749	0	111,328	6,543	0	0	6,543	104,785	283,118
2041	116,796	0	812	0	117,608	7,360	0	0	7,360	110,248	290,349
2042	123,433	0	795	0	124,227	7,228	0	0	7,228	116,999	297,395
2043	130,519	0	875	0	131,394	8,878	0	0	8,878	122,515	304,172
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
NOM	2,033,042	0	71,423	0	2,104,465	309,457	0	0	309,457	1,795,008	
NPV	370,537	0	28,564	0	399,101	94,929	0	0	94,929	304,172	

In Service of Gen Unit:

2019

Discount Rate :

8.89 %

Benefit/Cost Ratio (Col(6) / Col(10))

4.20

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: **Business Lighting**

PSC FORM CE 2.5
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2
2010.0	0.0	117.9	2963.7	777.0	0.0	3858.5	669.4	0.0	0.0	3.0	672.4	-3186.2	-2926.3
2011.0	0.0	219.1	6271.5	3090.7	0.0	9581.3	2466.0	244.5	0.0	7.4	2717.8	-6863.5	-8715.2
2012.0	0.0	232.1	5757.0	6427.2	0.0	12416.2	4827.5	694.3	0.0	14.5	5536.2	-6880.0	-14044.4
2013.0	0.0	244.8	5076.8	10271.1	0.0	15592.7	7452.0	1193.9	0.0	676.2	9322.1	-6270.6	-18505.2
2014.0	0.0	255.2	4065.8	14758.4	0.0	19079.3	10452.7	1676.6	0.0	1007.3	13136.6	-5942.8	-22387.7
2015.0	0.0	220.6	1710.1	19318.3	0.0	21249.0	14109.9	2163.2	0.0	1380.0	17653.1	-3596.0	-24545.2
2016.0	0.0	238.2	1893.3	23561.6	0.0	25693.1	19358.1	2568.4	0.0	1813.2	23739.7	-1953.4	-25621.6
2017.0	0.0	266.8	2058.9	28285.3	0.0	30611.0	24272.0	2951.5	0.0	2289.4	29512.9	-1098.1	-26177.3
2018.0	0.0	307.7	2275.2	33308.7	0.0	35891.6	29821.1	3387.4	0.0	2850.1	36058.6	167.0	-26099.6
2019.0	0.0	27.6	283.8	36853.2	0.0	37164.5	58999.1	3856.9	0.0	2327.0	65182.9	28018.9	-14140.8
2020.0	0.0	28.2	283.8	36845.3	0.0	37157.3	58925.5	3746.8	0.0	2139.5	64811.8	27654.5	-3300.7
2021.0	0.0	4.8	47.8	37625.5	0.0	37678.1	59683.4	3637.9	0.0	2246.4	65567.6	27889.6	6739.4
2022.0	0.0	29.7	283.8	38851.7	0.0	39165.2	60568.0	3532.7	0.0	2470.7	66571.4	27406.2	15800.2
2023.0	0.0	79.3	589.8	40131.5	0.0	40800.5	61213.9	3430.5	0.0	2571.4	67215.8	26415.3	23820.6
2024.0	0.0	88.0	578.2	42060.6	0.0	42726.7	62884.5	3330.7	0.0	2820.3	69035.6	26308.9	31156.8
2025.0	0.0	100.5	630.2	43638.5	0.0	44369.2	63973.2	3232.7	0.0	3021.7	70227.7	25858.5	37778.9
2026.0	0.0	114.6	687.4	45485.9	0.0	46287.9	64605.3	3136.0	0.0	3121.9	70863.2	24575.3	43558.7
2027.0	0.0	113.6	541.0	48054.0	0.0	48708.6	65505.3	3039.9	0.0	3333.2	71878.4	23169.8	48563.3
2028.0	0.0	161.0	845.7	50142.3	0.0	51149.0	66369.7	2944.2	0.0	3632.3	72946.2	21797.2	52887.1
2029.0	0.0	161.0	834.0	52555.4	0.0	53550.4	67407.9	2848.8	0.0	4014.4	74271.1	20720.7	56661.9
2030.0	0.0	278.2	3266.4	55303.2	0.0	58847.8	68564.6	2753.7	0.0	4237.0	75555.3	16707.5	59457.2
2031.0	0.0	438.9	6611.2	57998.3	0.0	65048.4	69893.3	2659.7	0.0	4614.6	77167.6	12119.2	61319.3
2032.0	0.0	311.2	5437.0	61614.6	0.0	67362.8	70835.4	2568.8	0.0	4970.2	78374.5	11011.7	62873.2
2033.0	0.0	284.5	4465.0	67400.6	0.0	72750.0	72476.2	2483.3	0.0	4988.1	79947.6	7797.6	63883.7
2034.0	0.0	316.9	3628.9	68696.6	0.0	72642.5	73697.6	2404.0	0.0	5282.9	81384.5	8742.0	64924.2
2035.0	0.0	235.6	1364.8	71643.2	0.0	73243.7	76765.5	2331.2	0.0	5697.7	84794.4	11550.7	66186.7
2036.0	0.0	297.8	1628.5	77040.3	0.0	78966.6	78865.1	2265.0	0.0	6110.8	87240.9	8274.3	67017.3
2037.0	0.0	334.3	1723.2	81318.6	0.0	83376.1	80965.1	2204.9	0.0	6588.1	89758.1	6382.0	67605.7
2038.0	0.0	396.9	1938.3	85044.6	0.0	87379.8	82669.8	2151.0	0.0	7083.1	91904.0	4524.2	67988.7
2039.0	0.0	120.2	451.5	89134.1	0.0	89705.8	84051.7	2103.8	0.0	7569.1	93724.6	4018.8	68301.2
2040.0	0.0	179.4	748.7	93488.4	0.0	94416.5	86796.4	2062.1	0.0	8135.6	96994.2	2577.7	68485.3
2041.0	0.0	202.6	812.3	98656.9	0.0	99671.8	88896.7	2022.8	0.0	8731.4	99650.8	-20.9	68483.9
2042.0	0.0	198.6	794.6	104174.3	0.0	105167.5	90917.9	1983.8	0.0	10252.1	102153.8	-2013.7	68362.6
2043.0	0.0	236.4	874.9	110064.5	0.0	111175.8	94927.0	1945.3	0.0	11899.6	108771.9	-2403.8	68229.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NOM.	0.0	6,842	71,423	1,733,620	0	1,811,885	1,923,887	83,556	0	137,900	2,145,343	333,458	
NPV	0.0	1,990	28,564	318,335	0	348,889	371,354	22,735	0	23,030	417,119	68,230	

Discount Rate: 8.9 %
 Benefit/Cost Ratio (Col(12) / Col(7)): 1.20

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: *Business Motors*

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	WORTH	PW FIXED	COST BASIS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	8,924	277	0	623	411	150	53	348	1	1,863	1,863	1,863	8,703
2020	8,575	266	0	598	282	144	54	348	114	1,808	1,660	3,523	8,921
2021	8,113	252	0	566	280	138	56	348	96	1,736	1,464	4,987	9,144
2022	7,669	238	0	535	276	132	57	348	80	1,667	1,291	6,278	9,372
2023	7,241	225	0	505	273	125	59	348	65	1,600	1,138	7,417	9,607
2024	6,828	212	0	476	269	119	60	348	51	1,535	1,003	8,420	9,847
2025	6,429	200	0	449	264	113	62	348	38	1,473	884	9,304	10,093
2026	6,043	188	0	422	259	107	63	348	26	1,412	778	10,082	10,345
2027	5,669	176	0	396	245	100	65	348	24	1,354	685	10,767	10,604
2028	5,297	165	0	370	229	94	66	348	24	1,295	602	11,369	10,869
2029	4,925	153	0	344	212	88	68	348	24	1,237	528	11,897	11,141
2030	4,553	141	0	318	196	81	70	348	24	1,178	462	12,359	11,419
2031	4,181	130	0	292	180	75	71	348	24	1,120	403	12,762	11,705
2032	3,809	118	0	266	163	69	73	348	24	1,062	351	13,113	11,997
2033	3,437	107	0	240	147	63	75	348	24	1,003	305	13,417	12,297
2034	3,065	95	0	214	131	56	77	348	24	945	264	13,681	12,605
2035	2,693	84	0	188	114	50	79	348	24	887	227	13,908	12,920
2036	2,321	72	0	162	98	44	81	348	24	829	195	14,103	13,243
2037	1,949	61	0	136	82	38	83	348	24	771	166	14,270	13,574
2038	1,577	49	0	110	66	31	85	348	24	713	141	14,411	13,913
2039	1,205	37	0	84	122	25	87	348	(49)	655	119	14,530	14,261
2040	905	28	0	63	182	19	89	348	(122)	607	102	14,632	14,617
2041	679	21	0	47	172	13	91	348	(122)	571	88	14,720	14,983
2042	453	14	0	32	162	6	94	348	(122)	534	75	14,795	15,357
2043	226	7	0	16	152	0	96	348	(122)	497	64	14,859	15,741

IN SERVICE COST (\$000)	8,703
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Business Motors

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	317	317	348	348	316	316	1	812	0	0	0	1	(220)
2020	7.22%	611	928	348	696	316	631	114	812	0	0	0	114	(106)
2021	6.68%	565	1,493	348	1,044	316	947	96	812	0	0	0	96	(10)
2022	6.18%	523	2,016	348	1,392	316	1,263	80	812	0	0	0	80	70
2023	5.71%	484	2,500	348	1,741	316	1,578	65	812	0	0	0	65	135
2024	5.29%	447	2,947	348	2,089	316	1,894	51	812	0	0	0	51	186
2025	4.89%	414	3,361	348	2,437	316	2,209	38	812	0	0	0	38	223
2026	4.52%	383	3,744	348	2,785	316	2,525	26	812	0	0	0	26	249
2027	4.46%	378	4,121	348	3,133	316	2,841	24	812	0	0	0	24	273
2028	4.46%	378	4,499	348	3,481	316	3,156	24	812	0	0	0	24	297
2029	4.46%	378	4,876	348	3,829	316	3,472	24	812	0	0	0	24	321
2030	4.46%	378	5,254	348	4,177	316	3,788	24	812	0	0	0	24	345
2031	4.46%	378	5,632	348	4,526	316	4,103	24	812	0	0	0	24	369
2032	4.46%	378	6,009	348	4,874	316	4,419	24	812	0	0	0	24	393
2033	4.46%	378	6,387	348	5,222	316	4,734	24	812	0	0	0	24	417
2034	4.46%	378	6,764	348	5,570	316	5,050	24	812	0	0	0	24	440
2035	4.46%	378	7,142	348	5,918	316	5,366	24	812	0	0	0	24	464
2036	4.46%	378	7,519	348	6,266	316	5,681	24	812	0	0	0	24	488
2037	4.46%	378	7,897	348	6,614	316	5,997	24	812	0	0	0	24	512
2038	4.46%	378	8,275	348	6,962	316	6,313	24	812	0	0	0	24	536
2039	2.23%	189	8,463	348	7,311	316	6,628	(49)	812	0	0	0	(49)	487
2040	0.00%	0	8,463	348	7,659	316	6,944	(122)	812	0	0	0	(122)	365
2041	0.00%	0	8,463	348	8,007	316	7,259	(122)	812	0	0	0	(122)	244
2042	0.00%	0	8,463	348	8,355	316	7,575	(122)	812	0	0	0	(122)	122
2043	0.00%	0	8,463	348	8,703	316	7,891	(122)	812	0	0	0	(122)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(221)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	812
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

page 4b

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PSC FORM CE 1.1A

PROGRAM METHOD SELECTED: REV_REQ

PAGE 2b OF 2

PROGRAM NAME: **Business Motors**

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
				END OF YEAR NET PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	317	1	8,355	348	(220)	8,924	8,575	8,749
2020	7.22%	611	114	8,007	696	(106)	8,575	8,113	8,344
2021	6.68%	565	96	7,659	1,044	(10)	8,113	7,669	7,891
2022	6.18%	523	80	7,311	1,392	70	7,669	7,241	7,455
2023	5.71%	484	65	6,962	1,741	135	7,241	6,828	7,034
2024	5.29%	447	51	6,614	2,089	186	6,828	6,429	6,628
2025	4.89%	414	38	6,266	2,437	223	6,429	6,043	6,236
2026	4.52%	383	26	5,918	2,785	249	6,043	5,669	5,856
2027	4.46%	378	24	5,570	3,133	273	5,669	5,297	5,483
2028	4.46%	378	24	5,222	3,481	297	5,297	4,925	5,111
2029	4.46%	378	24	4,874	3,829	321	4,925	4,553	4,739
2030	4.46%	378	24	4,526	4,177	345	4,553	4,181	4,367
2031	4.46%	378	24	4,177	4,526	369	4,181	3,809	3,995
2032	4.46%	378	24	3,829	4,874	393	3,809	3,437	3,623
2033	4.46%	378	24	3,481	5,222	417	3,437	3,065	3,251
2034	4.46%	378	24	3,133	5,570	440	3,065	2,693	2,879
2035	4.46%	378	24	2,785	5,918	464	2,693	2,321	2,507
2036	4.46%	378	24	2,437	6,266	488	2,321	1,949	2,135
2037	4.46%	378	24	2,089	6,614	512	1,949	1,577	1,763
2038	4.46%	378	24	1,741	6,962	536	1,577	1,205	1,391
2039	2.23%	189	(49)	1,392	7,311	487	1,205	905	1,055
2040	0.00%	0	(122)	1,044	7,659	365	905	679	792
2041	0.00%	0	(122)	696	8,007	244	679	453	566
2042	0.00%	0	(122)	348	8,355	122	453	226	339
2043	0.00%	0	(122)	0	8,703	0	226	0	113

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAF	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	7,421	7,421	7,421
EQUITY AFUDC	812		
DEBT AFUDC	470	470	
CPI			1,042
TOTAL	8,703	7,891	8,463

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Motors

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	0	0	0	0	0	0	0	0	0	0	(0)
2011	0	4	84	0	87	0	0	15	0	15	(72)	(61)
2012	0	4	90	0	94	0	4	46	0	51	(43)	(94)
2013	0	4	96	0	100	0	9	83	8	100	(0)	(95)
2014	0	4	102	0	106	0	13	125	13	151	45	(65)
2015	0	5	108	0	112	0	18	179	18	215	102	(4)
2016	0	5	113	0	118	0	23	254	25	302	184	98
2017	0	5	118	0	123	0	28	330	33	391	268	233
2018	0	5	122	0	128	0	33	415	42	490	363	402
2019	0	0	0	0	0	224	38	494	40	796	796	741
2020	0	0	0	0	0	208	37	519	40	803	803	1,056
2021	0	0	0	0	0	200	36	540	42	818	818	1,351
2022	0	0	0	0	0	198	35	557	47	838	838	1,628
2023	0	0	0	0	0	202	34	567	50	852	852	1,886
2024	0	0	0	0	0	204	33	589	55	881	881	2,132
2025	0	0	0	0	0	204	32	607	60	902	902	2,363
2026	0	5	121	0	127	205	31	617	62	915	788	2,548
2027	0	6	130	0	136	207	30	630	68	935	799	2,721
2028	0	6	139	0	145	206	29	647	74	955	810	2,882
2029	0	6	148	0	154	211	28	659	82	980	826	3,032
2030	0	7	156	0	163	211	27	677	87	1,003	841	3,173
2031	0	7	164	0	171	210	26	699	95	1,030	860	3,305
2032	0	7	171	0	178	216	25	709	103	1,053	875	3,428
2033	0	8	177	0	185	216	24	734	108	1,082	897	3,545
2034	0	0	0	0	0	226	24	743	116	1,108	1,108	3,676
2035	0	0	0	0	0	229	23	780	125	1,158	1,158	3,803
2036	0	0	0	0	0	227	22	813	135	1,197	1,197	3,923
2037	0	0	0	0	0	232	22	838	145	1,237	1,237	4,037
2038	0	0	0	0	0	225	21	874	157	1,277	1,277	4,145
2039	0	0	0	0	0	221	21	902	169	1,313	1,313	4,247
2040	0	0	0	0	0	231	20	931	181	1,364	1,364	4,345
2041	0	8	176	0	183	229	20	967	195	1,411	1,227	4,425
2042	0	8	189	0	197	225	19	1,004	218	1,466	1,269	4,502
2043	0	9	201	0	210	225	19	1,057	243	1,544	1,334	4,575
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	112	2,605	0	2,717	5,393	804	19,601	2,834	28,632	25,915	
NPV	0	33	762	0	795	973	212	3,752	434	5,371	4,575	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) :

6.75

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Motors

FSC FORM CE 2.5
PAGE 1 OF 1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	0	0	0	0	0	0	0	0	0	0	0	(0)
2011	0	4	5	19	0	28	15	0	0	0	15	(12)	(11)
2012	0	4	5	60	0	69	46	4	0	0	51	(19)	(25)
2013	0	4	6	108	0	118	83	9	0	8	100	(18)	(38)
2014	0	4	6	165	0	175	125	13	0	13	151	(24)	(54)
2015	0	5	6	228	0	239	179	18	0	18	215	(24)	(68)
2016	0	5	6	296	0	307	254	23	0	25	302	(5)	(71)
2017	0	5	6	370	0	381	330	28	0	33	391	10	(66)
2018	0	5	6	444	0	456	415	33	0	42	490	35	(50)
2019	0	0	0	496	0	496	718	38	0	40	796	300	78
2020	0	0	0	497	0	497	727	37	0	40	803	307	199
2021	0	0	0	509	0	509	740	36	0	42	818	309	310
2022	0	0	0	528	0	528	756	35	0	47	838	310	412
2023	0	0	0	547	0	547	769	34	0	50	852	305	505
2024	0	0	0	575	0	575	793	33	0	55	881	305	590
2025	0	0	0	601	0	601	811	32	0	60	902	302	667
2026	0	5	5	628	0	638	822	31	0	62	915	277	732
2027	0	6	5	666	0	677	837	30	0	68	935	257	788
2028	0	6	6	697	0	709	852	29	0	74	955	247	837
2029	0	6	6	733	0	745	870	28	0	82	980	235	880
2030	0	7	6	774	0	786	889	27	0	87	1,003	217	916
2031	0	7	6	814	0	827	909	26	0	95	1,030	203	947
2032	0	7	6	867	0	881	925	25	0	103	1,053	173	971
2033	0	8	6	952	0	966	950	24	0	108	1,082	116	986
2034	0	0	0	971	0	971	969	24	0	116	1,108	137	1,003
2035	0	0	0	1,016	0	1,016	1,010	23	0	125	1,158	141	1,018
2036	0	0	0	1,097	0	1,097	1,040	22	0	135	1,197	100	1,028
2037	0	0	0	1,160	0	1,160	1,070	22	0	145	1,237	77	1,035
2038	0	0	0	1,216	0	1,216	1,099	21	0	157	1,277	62	1,041
2039	0	0	0	1,277	0	1,277	1,123	21	0	169	1,313	36	1,043
2040	0	0	0	1,342	0	1,342	1,162	20	0	181	1,364	22	1,045
2041	0	8	5	1,420	0	1,432	1,196	20	0	195	1,411	(22)	1,044
2042	0	8	5	1,502	0	1,516	1,229	19	0	218	1,466	(50)	1,040
2043	0	9	6	1,591	0	1,605	1,282	19	0	243	1,544	(61)	1,037
2044	0	0	0	0	0	0	0	0	0	0	0	0	0
2045	0	0	0	0	0	0	0	0	0	0	0	0	0
2046	0	0	0	0	0	0	0	0	0	0	0	0	0
2047	0	0	0	0	0	0	0	0	0	0	0	0	0
2048	0	0	0	0	0	0	0	0	0	0	0	0	0
2049	0	0	0	0	0	0	0	0	0	0	0	0	0
2050	0	0	0	0	0	0	0	0	0	0	0	0	0
NOM.	0	112	108	24,167	0	24,387	24,995	804	0	2,834	28,632	4,246	
NPV	0	33	38	4,263	0	4,334	4,726	212	0	434	5,371	1,037	

Discount Rate

8.89 %

Benefit/Cost Ratio (Col(12) / Col(7)) :

1.24

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME: Business Photovoltaics (PV)

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	374	12	0	26	17	6	2	15	0	78	78	78	365
2020	359	11	0	25	12	6	2	15	5	76	70	148	374
2021	340	11	0	24	12	6	2	15	4	73	61	209	383
2022	321	10	0	22	12	6	2	15	3	70	54	263	393
2023	303	9	0	21	11	5	2	15	3	67	48	311	403
2024	286	9	0	20	11	5	3	15	2	64	42	353	413
2025	269	8	0	19	11	5	3	15	2	62	37	390	423
2026	253	8	0	18	11	4	3	15	1	59	33	423	434
2027	238	7	0	17	10	4	3	15	1	57	29	451	444
2028	222	7	0	15	10	4	3	15	1	54	25	476	455
2029	206	6	0	14	9	4	3	15	1	52	22	499	467
2030	191	6	0	13	8	3	3	15	1	49	19	518	479
2031	175	5	0	12	8	3	3	15	1	47	17	535	491
2032	160	5	0	11	7	3	3	15	1	44	15	550	503
2033	144	4	0	10	6	3	3	15	1	42	13	562	515
2034	128	4	0	9	5	2	3	15	1	40	11	573	528
2035	113	4	0	8	5	2	3	15	1	37	10	583	541
2036	97	3	0	7	4	2	3	15	1	35	8	591	555
2037	82	3	0	6	3	2	3	15	1	32	7	598	569
2038	66	2	0	5	3	1	4	15	1	30	6	604	583
2039	50	2	0	4	5	1	4	15	(2)	27	5	609	598
2040	38	1	0	3	8	1	4	15	(5)	25	4	613	613
2041	28	1	0	2	7	1	4	15	(5)	24	4	617	628
2042	19	1	0	1	7	0	4	15	(5)	22	3	620	644
2043	9	0	0	1	6	(0)	4	15	(5)	21	3	623	660

IN SERVICE COST (\$000)	365
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPR FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	13	13	15	15	13	13	0	34	0	0	0	0	(9)
2020	7.22%	26	39	15	29	13	26	5	34	0	0	0	5	(4)
2021	6.68%	24	63	15	44	13	40	4	34	0	0	0	4	(0)
2022	6.18%	22	85	15	58	13	53	3	34	0	0	0	3	3
2023	5.71%	20	105	15	73	13	66	3	34	0	0	0	3	6
2024	5.29%	19	124	15	88	13	79	2	34	0	0	0	2	8
2025	4.89%	17	141	15	102	13	93	2	34	0	0	0	2	9
2026	4.52%	16	157	15	117	13	106	1	34	0	0	0	1	10
2027	4.46%	16	173	15	131	13	119	1	34	0	0	0	1	11
2028	4.46%	16	189	15	146	13	132	1	34	0	0	0	1	12
2029	4.46%	16	204	15	160	13	145	1	34	0	0	0	1	13
2030	4.46%	16	220	15	175	13	159	1	34	0	0	0	1	14
2031	4.46%	16	236	15	190	13	172	1	34	0	0	0	1	15
2032	4.46%	16	252	15	204	13	185	1	34	0	0	0	1	16
2033	4.46%	16	268	15	219	13	198	1	34	0	0	0	1	17
2034	4.46%	16	283	15	233	13	212	1	34	0	0	0	1	18
2035	4.46%	16	299	15	248	13	225	1	34	0	0	0	1	19
2036	4.46%	16	315	15	263	13	238	1	34	0	0	0	1	20
2037	4.46%	16	331	15	277	13	251	1	34	0	0	0	1	21
2038	4.46%	16	347	15	292	13	265	1	34	0	0	0	1	22
2039	2.23%	8	355	15	306	13	278	(2)	34	0	0	0	(2)	20
2040	0.00%	0	355	15	321	13	291	(5)	34	0	0	0	(5)	15
2041	0.00%	0	355	15	336	13	304	(5)	34	0	0	0	(5)	10
2042	0.00%	0	355	15	350	13	317	(5)	34	0	0	0	(5)	5
2043	0.00%	0	355	15	365	13	331	(5)	34	0	0	0	(5)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(9)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	34
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

page 4b

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PSC FORM CE 1.1A

PROGRAM METHOD SELECTED: REV_REQ

PAGE 2b OF 2

PROGRAM NAME: Business Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END									
OF YEAR									
NET									
	TAX	TAX	DEFERRED	PLANT IN	ACCUMULATED	ACCUMULATED	BEGINNING	ENDING OF	MID-YEAR
YEAR	DEPRECIATION	DEPRECIATION	TAX	SERVICE	DEPRECIATION	DEF TAXES	YEAR RATE	YEAR RATE	RATE BASE
	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	BASE	BASE	\$(000)
2019	3.75%	13	0	350	15	(9)	374	359	367
2020	7.22%	26	5	336	29	(4)	359	340	350
2021	6.68%	24	4	321	44	(0)	340	321	331
2022	6.18%	22	3	306	58	3	321	303	312
2023	5.71%	20	3	292	73	6	303	286	295
2024	5.29%	19	2	277	88	8	286	269	278
2025	4.89%	17	2	263	102	9	269	253	261
2026	4.52%	16	1	248	117	10	253	238	245
2027	4.46%	16	1	233	131	11	238	222	230
2028	4.46%	16	1	219	146	12	222	206	214
2029	4.46%	16	1	204	160	13	206	191	199
2030	4.46%	16	1	190	175	14	191	175	183
2031	4.46%	16	1	175	190	15	175	160	167
2032	4.46%	16	1	160	204	16	160	144	152
2033	4.46%	16	1	146	219	17	144	128	136
2034	4.46%	16	1	131	233	18	128	113	121
2035	4.46%	16	1	117	248	19	113	97	105
2036	4.46%	16	1	102	263	20	97	82	89
2037	4.46%	16	1	88	277	21	82	66	74
2038	4.46%	16	1	73	292	22	66	50	58
2039	2.23%	8	(2)	58	306	20	50	38	44
2040	0.00%	0	(5)	44	321	15	38	28	33
2041	0.00%	0	(5)	29	336	10	28	19	24
2042	0.00%	0	(5)	15	350	5	19	9	14
2043	0.00%	0	(5)	(0)	365	0	9	0	5

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(2) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	311	311	311
EQUITY AFUDC	34		
DEBT AFUDC	20	20	
CPI			44
TOTAL	365	331	355

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	437	3,065	0	3,502	0	0	0	0	0	(3,502)	(3,217)
2011	0	498	9,912	0	10,410	0	0	0	0	0	(10,410)	(11,997)
2012	0	342	10,914	0	11,256	0	0	268	1	269	(10,987)	(20,508)
2013	0	346	12,306	0	12,652	0	2	379	32	413	(12,239)	(29,214)
2014	0	362	14,252	0	14,613	0	8	544	50	602	(14,012)	(38,368)
2015	0	0	1,421	0	1,421	0	20	695	63	779	(642)	(38,754)
2016	0	0	1,457	0	1,457	0	22	841	72	935	(522)	(39,042)
2017	0	0	1,493	0	1,493	0	24	921	79	1,024	(470)	(39,279)
2018	0	0	1,531	0	1,531	0	26	974	85	1,084	(446)	(39,487)
2019	0	0	1,569	0	1,569	628	25	1,095	64	1,812	243	(39,383)
2020	0	0	1,608	0	1,608	576	25	1,132	58	1,791	183	(39,311)
2021	0	0	1,648	0	1,648	546	25	1,168	59	1,797	149	(39,258)
2022	0	0	1,690	0	1,690	538	25	1,217	64	1,843	154	(39,207)
2023	0	0	1,732	0	1,732	544	24	1,205	66	1,840	108	(39,174)
2024	0	0	1,775	0	1,775	547	24	1,243	70	1,884	109	(39,144)
2025	0	0	1,820	0	1,820	541	24	1,262	74	1,900	81	(39,123)
2026	0	0	1,865	0	1,865	541	24	1,257	75	1,896	31	(39,116)
2027	0	0	1,912	0	1,912	542	23	1,260	77	1,903	(9)	(39,118)
2028	0	0	1,959	0	1,959	535	23	1,275	83	1,915	(44)	(39,127)
2029	0	0	2,008	0	2,008	547	23	1,256	89	1,915	(93)	(39,144)
2030	0	0	2,059	0	2,059	543	23	1,287	92	1,945	(114)	(39,163)
2031	0	0	2,110	0	2,110	535	22	1,318	99	1,974	(136)	(39,184)
2032	0	0	2,163	0	2,163	530	22	1,282	104	1,959	(204)	(39,212)
2033	0	0	2,217	0	2,217	545	22	1,322	99	1,988	(229)	(39,242)
2034	0	0	2,272	0	2,272	571	22	1,281	102	1,976	(297)	(39,277)
2035	0	0	2,329	0	2,329	578	22	1,361	108	2,068	(261)	(39,306)
2036	0	0	2,387	0	2,387	568	22	1,419	113	2,121	(266)	(39,333)
2037	0	0	2,447	0	2,447	579	22	1,439	119	2,158	(289)	(39,359)
2038	0	0	2,508	0	2,508	556	22	1,488	125	2,190	(318)	(39,386)
2039	0	0	2,571	0	2,571	541	22	1,523	130	2,215	(356)	(39,414)
2040	0	0	2,635	0	2,635	565	22	1,542	135	2,264	(371)	(39,440)
2041	0	0	2,701	0	2,701	554	22	1,583	142	2,300	(401)	(39,467)
2042	0	0	2,769	0	2,769	537	22	1,626	174	2,359	(410)	(39,491)
2043	0	0	2,838	0	2,838	535	22	1,736	209	2,501	(337)	(39,510)
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	1,985	109,945	0	111,930	13,840	671	38,199	2,909	55,619	(56,311)	
NPV	0	1,569	49,715	0	51,284	2,565	163	8,450	596	11,774	(39,510)	

Discount Rate: 8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) : 0.23

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME: Business Photovoltaics for Schools

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	263	8	0	18	12	4	2	10	0	55	55	55	257
2020	253	8	0	18	8	4	2	10	3	53	49	104	263
2021	239	7	0	17	8	4	2	10	3	51	43	147	270
2022	226	7	0	16	8	4	2	10	2	49	38	185	276
2023	213	7	0	15	8	4	2	10	2	47	34	219	283
2024	201	6	0	14	8	4	2	10	1	45	30	248	290
2025	190	6	0	13	8	3	2	10	1	43	26	274	298
2026	178	6	0	12	8	3	2	10	1	42	23	297	305
2027	167	5	0	12	7	3	2	10	1	40	20	317	313
2028	156	5	0	11	7	3	2	10	1	38	18	335	320
2029	145	5	0	10	6	3	2	10	1	36	16	351	328
2030	134	4	0	9	6	2	2	10	1	35	14	364	337
2031	123	4	0	9	5	2	2	10	1	33	12	376	345
2032	112	3	0	8	5	2	2	10	1	31	10	387	354
2033	101	3	0	7	4	2	2	10	1	30	9	396	363
2034	90	3	0	6	4	2	2	10	1	28	8	403	372
2035	79	2	0	6	3	1	2	10	1	26	7	410	381
2036	68	2	0	5	3	1	2	10	1	24	6	416	390
2037	57	2	0	4	2	1	2	10	1	23	5	421	400
2038	46	1	0	3	2	1	3	10	1	21	4	425	410
2039	36	1	0	2	4	1	3	10	(1)	19	4	428	420
2040	27	1	0	2	5	1	3	10	(4)	18	3	431	431
2041	20	1	0	1	5	0	3	10	(4)	17	3	434	442
2042	13	0	0	1	5	0	3	10	(4)	16	2	436	453
2043	7	0	0	0	4	(0)	3	10	(4)	15	2	438	464

IN SERVICE COST (\$000)	257
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Photovoltaics for Schools

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	9	9	10	10	9	9	0	24	0	0	0	0	(6)
2020	7.22%	18	27	10	21	9	19	3	24	0	0	0	3	(3)
2021	6.68%	17	44	10	31	9	28	3	24	0	0	0	3	(0)
2022	6.18%	15	59	10	41	9	37	2	24	0	0	0	2	2
2023	5.71%	14	74	10	51	9	47	2	24	0	0	0	2	4
2024	5.29%	13	87	10	62	9	56	1	24	0	0	0	1	5
2025	4.89%	12	99	10	72	9	65	1	24	0	0	0	1	7
2026	4.52%	11	110	10	82	9	74	1	24	0	0	0	1	7
2027	4.46%	11	121	10	92	9	84	1	24	0	0	0	1	8
2028	4.46%	11	133	10	103	9	93	1	24	0	0	0	1	9
2029	4.46%	11	144	10	113	9	102	1	24	0	0	0	1	9
2030	4.46%	11	155	10	123	9	112	1	24	0	0	0	1	10
2031	4.46%	11	166	10	133	9	121	1	24	0	0	0	1	11
2032	4.46%	11	177	10	144	9	130	1	24	0	0	0	1	12
2033	4.46%	11	188	10	154	9	140	1	24	0	0	0	1	12
2034	4.46%	11	199	10	164	9	149	1	24	0	0	0	1	13
2035	4.46%	11	211	10	174	9	158	1	24	0	0	0	1	14
2036	4.46%	11	222	10	185	9	167	1	24	0	0	0	1	14
2037	4.46%	11	233	10	195	9	177	1	24	0	0	0	1	15
2038	4.46%	11	244	10	205	9	186	1	24	0	0	0	1	16
2039	2.23%	6	249	10	216	9	195	(1)	24	0	0	0	(1)	14
2040	0.00%	0	249	10	226	9	205	(4)	24	0	0	0	(4)	11
2041	0.00%	0	249	10	236	9	214	(4)	24	0	0	0	(4)	7
2042	0.00%	0	249	10	246	9	223	(4)	24	0	0	0	(4)	4
2043	0.00%	0	249	10	257	9	233	(4)	24	0	0	0	(4)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(7)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	24
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

page 4b

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Business Photovoltaics for Schools

PSC FORM CE 1.1A

PAGE 2b OF 2

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END OF YEAR NET PLANT IN SERVICE									
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	9	0	246	10	(6)	263	253	258
2020	7.22%	18	3	236	21	(3)	253	239	246
2021	6.68%	17	3	226	31	(0)	239	226	233
2022	6.18%	15	2	216	41	2	226	213	220
2023	5.71%	14	2	205	51	4	213	201	207
2024	5.29%	13	1	195	62	5	201	190	195
2025	4.89%	12	1	185	72	7	190	178	184
2026	4.52%	11	1	174	82	7	178	167	173
2027	4.46%	11	1	164	92	8	167	156	162
2028	4.46%	11	1	154	103	9	156	145	151
2029	4.46%	11	1	144	113	9	145	134	140
2030	4.46%	11	1	133	123	10	134	123	129
2031	4.46%	11	1	123	133	11	123	112	118
2032	4.46%	11	1	113	144	12	112	101	107
2033	4.46%	11	1	103	154	12	101	90	96
2034	4.46%	11	1	92	164	13	90	79	85
2035	4.46%	11	1	82	174	14	79	68	74
2036	4.46%	11	1	72	185	14	68	57	63
2037	4.46%	11	1	62	195	15	57	46	52
2038	4.46%	11	1	51	205	16	46	36	41
2039	2.23%	6	(1)	41	216	14	36	27	31
2040	0.00%	0	(4)	31	226	11	27	20	23
2041	0.00%	0	(4)	21	236	7	20	13	17
2042	0.00%	0	(4)	10	246	4	13	7	10
2043	0.00%	0	(4)	(0)	257	0	7	0	3

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	219	219	219
EQUITY AFUDC	24		
DEBT AFUDC	14	14	
CPI			31
TOTAL	257	233	249

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: **Business Photovoltaics for Schools**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	112	0	0	112	0	0	1	0	1	(111)	(102)
2011	0	479	0	0	479	0	0	9	0	9	(470)	(498)
2012	0	928	0	0	928	0	1	23	0	24	(904)	(1,198)
2013	0	1,331	0	0	1,331	0	3	37	3	42	(1,288)	(2,115)
2014	0	1,635	0	0	1,635	0	5	50	5	59	(1,576)	(3,144)
2015	0	1,514	0	0	1,514	0	6	61	6	73	(1,441)	(4,009)
2016	0	1,217	0	0	1,217	0	6	74	6	86	(1,131)	(4,632)
2017	0	808	0	0	808	0	6	81	7	94	(714)	(4,993)
2018	0	436	0	0	436	0	6	86	7	99	(337)	(5,150)
2019	0	136	0	0	136	55	6	96	6	162	27	(5,139)
2020	0	0	0	0	0	50	6	100	5	161	161	(5,075)
2021	0	0	0	0	0	48	6	104	5	162	162	(5,017)
2022	0	0	0	0	0	47	5	107	6	165	165	(4,963)
2023	0	0	0	0	0	47	5	106	6	164	164	(4,913)
2024	0	0	0	0	0	48	5	109	6	168	168	(4,866)
2025	0	0	0	0	0	47	5	111	6	169	169	(4,823)
2026	0	0	0	0	0	47	5	110	6	169	169	(4,783)
2027	0	0	0	0	0	47	5	111	7	169	169	(4,746)
2028	0	0	0	0	0	47	5	113	7	172	172	(4,712)
2029	0	0	0	0	0	48	4	112	8	172	172	(4,681)
2030	0	0	0	0	0	47	4	113	8	173	173	(4,652)
2031	0	0	0	0	0	47	4	116	9	175	175	(4,625)
2032	0	0	0	0	0	48	4	113	9	174	174	(4,601)
2033	0	0	0	0	0	48	4	116	9	176	176	(4,578)
2034	0	0	0	0	0	50	4	113	9	175	175	(4,557)
2035	0	0	0	0	0	51	4	120	9	183	183	(4,537)
2036	0	0	0	0	0	50	4	125	10	188	188	(4,518)
2037	0	0	0	0	0	51	4	127	10	192	192	(4,500)
2038	0	0	0	0	0	49	3	132	11	195	195	(4,484)
2039	0	0	0	0	0	47	3	134	11	196	196	(4,469)
2040	0	0	0	0	0	50	3	135	12	200	200	(4,454)
2041	0	0	0	0	0	49	3	139	12	203	203	(4,441)
2042	0	0	0	0	0	47	3	143	15	208	208	(4,429)
2043	0	0	0	0	0	47	3	152	18	220	220	(4,416)
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
NOM	0	8,596	0	0	8,596	1,211	140	3,378	251	4,979	(3,617)	
NPV	0	5,490	0	0	5,490	224	41	756	52	1,073	(4,416)	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) :

0.20

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_RFQ
PROGRAM NAME: **Business Photovoltaics for Schools**

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	1	0	0	0	1	0	0	0	0	1	1
2011	8	0	0	0	8	0	0	0	0	8	8
2012	22	0	0	0	22	0	0	0	0	22	25
2013	37	0	0	0	37	0	0	0	0	37	52
2014	53	0	0	0	53	0	0	0	0	53	86
2015	62	0	0	0	62	0	0	0	0	62	123
2016	65	0	0	0	65	0	0	0	0	65	159
2017	67	0	0	0	67	0	0	0	0	67	193
2018	69	0	0	0	69	0	0	0	0	69	225
2019	72	0	0	0	72	0	0	0	0	72	256
2020	72	0	0	0	72	0	0	0	0	72	284
2021	74	0	0	0	74	0	0	0	0	74	311
2022	78	0	0	0	78	0	0	0	0	78	336
2023	80	0	0	0	80	0	0	0	0	80	361
2024	85	0	0	0	85	0	0	0	0	85	384
2025	89	0	0	0	89	0	0	0	0	89	407
2026	94	0	0	0	94	0	0	0	0	94	429
2027	100	0	0	0	100	0	0	0	0	100	451
2028	104	0	0	0	104	0	0	0	0	104	471
2029	110	0	0	0	110	0	0	0	0	110	491
2030	116	0	0	0	116	0	0	0	0	116	511
2031	122	0	0	0	122	0	0	0	0	122	530
2032	130	0	0	0	130	0	0	0	0	130	548
2033	143	0	0	0	143	0	0	0	0	143	567
2034	145	0	0	0	145	0	0	0	0	145	584
2035	153	0	0	0	153	0	0	0	0	153	601
2036	165	0	0	0	165	0	0	0	0	165	617
2037	174	0	0	0	174	0	0	0	0	174	633
2038	182	0	0	0	182	0	0	0	0	182	649
2039	191	0	0	0	191	0	0	0	0	191	663
2040	200	0	0	0	200	0	0	0	0	200	678
2041	212	0	0	0	212	0	0	0	0	212	692
2042	224	0	0	0	224	0	0	0	0	224	705
2043	236	0	0	0	236	0	0	0	0	236	718
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
NOM	3,735	0	0	0	3,735	0	0	0	0	3,735	
NPV	718	0	0	0	718	0	0	0	0	718	

In Service of Gen Unit:

2019

Discount Rate :

8.89 %

Benefit/Cost Ratio (Col(6) / Col(10))

Infinite

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME: **Business Photovoltaics for Schools**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED	UTILITY	INCENTIVES	REVENUE	OTHER	TOTAL	AVOIDED GEN	AVOIDED	REVENUE	OTHER	TOTAL	NET	CUMULATIVE
	SUPPLY	PROGRAM		LOSSES	COSTS	UNIT & FUEL	T&D	GAINS		BENEFITS	BENEFITS	BENEFITS	NET
	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	112	0	1	0	113	1	0	0	0	1	(112)	(103)
2011	0	479	0	7	0	486	9	0	0	0	9	(477)	(505)
2012	0	928	0	18	0	946	23	1	0	0	24	(922)	(1,219)
2013	0	1,331	0	31	0	1,362	37	3	0	3	42	(1,319)	(2,158)
2014	0	1,635	0	44	0	1,679	50	5	0	5	59	(1,620)	(3,216)
2015	0	1,514	0	51	0	1,565	61	6	0	6	73	(1,492)	(4,111)
2016	0	1,217	0	54	0	1,271	74	6	0	6	86	(1,185)	(4,764)
2017	0	808	0	56	0	863	81	6	0	7	94	(769)	(5,153)
2018	0	436	0	57	0	493	86	6	0	7	99	(394)	(5,337)
2019	0	136	0	60	0	196	151	6	0	6	162	(33)	(5,351)
2020	0	0	0	60	0	60	151	6	0	5	161	101	(5,311)
2021	0	0	0	62	0	62	151	6	0	5	162	100	(5,275)
2022	0	0	0	64	0	64	154	5	0	6	165	100	(5,242)
2023	0	0	0	67	0	67	153	5	0	6	164	98	(5,212)
2024	0	0	0	70	0	70	157	5	0	6	168	98	(5,185)
2025	0	0	0	74	0	74	158	5	0	6	169	95	(5,161)
2026	0	0	0	78	0	78	158	5	0	6	169	91	(5,139)
2027	0	0	0	83	0	83	158	5	0	7	169	87	(5,120)
2028	0	0	0	87	0	87	160	5	0	7	172	85	(5,103)
2029	0	0	0	91	0	91	159	4	0	8	172	80	(5,089)
2030	0	0	0	96	0	96	161	4	0	8	173	76	(5,076)
2031	0	0	0	101	0	101	163	4	0	9	175	74	(5,065)
2032	0	0	0	108	0	108	161	4	0	9	174	66	(5,055)
2033	0	0	0	119	0	119	164	4	0	9	176	57	(5,048)
2034	0	0	0	121	0	121	163	4	0	9	175	54	(5,042)
2035	0	0	0	127	0	127	170	4	0	9	183	56	(5,035)
2036	0	0	0	137	0	137	174	4	0	10	188	51	(5,030)
2037	0	0	0	144	0	144	178	4	0	10	192	47	(5,026)
2038	0	0	0	151	0	151	180	3	0	11	195	43	(5,022)
2039	0	0	0	158	0	158	181	3	0	11	196	37	(5,019)
2040	0	0	0	166	0	166	185	3	0	12	200	34	(5,017)
2041	0	0	0	176	0	176	188	3	0	12	203	27	(5,015)
2042	0	0	0	186	0	186	190	3	0	15	208	22	(5,014)
2043	0	0	0	196	0	196	199	3	0	18	220	24	(5,012)
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
NOM.	0	8,596	0	3,100	0	11,697	4,588	140	0	251	4,979		(6,718)
NPV	0	5,490	0	596	0	6,086	980	41	0	52	1,073		(5,012)

Discount Rate 8.89 %
 Benefit/Cost Ratio (Col(12) / Col(7)) : 0.18

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Business Refrigeration

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	16,962	527	0	1,184	781	286	101	662	1	3,541	3,541	3,541	16,542
2020	16,299	506	0	1,137	537	274	103	662	217	3,436	3,156	6,697	16,956
2021	15,421	479	0	1,076	532	262	106	662	183	3,300	2,783	9,480	17,380
2022	14,576	453	0	1,017	526	250	109	662	152	3,168	2,454	11,934	17,814
2023	13,762	428	0	960	519	238	111	662	123	3,041	2,163	14,097	18,260
2024	12,978	403	0	906	511	226	114	662	97	2,919	1,907	16,004	18,716
2025	12,219	380	0	853	502	214	117	662	72	2,800	1,680	17,684	19,184
2026	11,486	357	0	802	493	202	120	662	49	2,685	1,479	19,163	19,664
2027	10,775	335	0	752	466	191	123	662	45	2,573	1,302	20,465	20,155
2028	10,068	313	0	703	435	179	126	662	45	2,462	1,144	21,609	20,659
2029	9,361	291	0	653	404	167	129	662	45	2,351	1,003	22,613	21,175
2030	8,654	269	0	604	373	155	132	662	45	2,240	878	23,490	21,705
2031	7,947	247	0	555	342	143	136	662	45	2,129	766	24,257	22,247
2032	7,239	225	0	505	311	131	139	662	45	2,018	667	24,924	22,804
2033	6,532	203	0	456	280	119	143	662	45	1,907	579	25,503	23,374
2034	5,825	181	0	407	249	107	146	662	45	1,797	501	26,004	23,958
2035	5,118	159	0	357	218	95	150	662	45	1,686	432	26,436	24,557
2036	4,411	137	0	308	187	83	154	662	45	1,576	371	26,806	25,171
2037	3,704	115	0	258	156	71	157	662	45	1,465	316	27,123	25,800
2038	2,997	93	0	209	125	60	161	662	45	1,355	269	27,392	26,445
2039	2,290	71	0	160	232	48	165	662	(93)	1,245	227	27,618	27,106
2040	1,721	53	0	120	346	36	169	662	(231)	1,155	193	27,812	27,784
2041	1,291	40	0	90	327	24	174	662	(231)	1,085	167	27,978	28,479
2042	860	27	0	60	308	12	178	662	(231)	1,015	143	28,121	29,191
2043	430	13	0	30	289	(0)	183	662	(231)	945	122	28,244	29,920

IN SERVICE COST (\$000)	16,542
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Refrigeration

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	603	603	662	662	600	600	1	1,544	0	0	0	1	(419)
2020	7.22%	1,161	1,765	662	1,323	600	1,200	217	1,544	0	0	0	217	(202)
2021	6.68%	1,074	2,839	662	1,985	600	1,800	183	1,544	0	0	0	183	(19)
2022	6.18%	994	3,833	662	2,647	600	2,400	152	1,544	0	0	0	152	133
2023	5.71%	919	4,752	662	3,308	600	3,000	123	1,544	0	0	0	123	256
2024	5.29%	850	5,602	662	3,970	600	3,600	97	1,544	0	0	0	97	353
2025	4.89%	786	6,388	662	4,632	600	4,199	72	1,544	0	0	0	72	425
2026	4.52%	727	7,116	662	5,294	600	4,799	49	1,544	0	0	0	49	474
2027	4.46%	718	7,833	662	5,955	600	5,399	45	1,544	0	0	0	45	519
2028	4.46%	718	8,551	662	6,617	600	5,999	45	1,544	0	0	0	45	565
2029	4.46%	718	9,269	662	7,279	600	6,599	45	1,544	0	0	0	45	610
2030	4.46%	718	9,986	662	7,940	600	7,199	45	1,544	0	0	0	45	655
2031	4.46%	718	10,704	662	8,602	600	7,799	45	1,544	0	0	0	45	701
2032	4.46%	718	11,422	662	9,264	600	8,399	45	1,544	0	0	0	45	746
2033	4.46%	718	12,140	662	9,925	600	8,999	45	1,544	0	0	0	45	792
2034	4.46%	718	12,857	662	10,587	600	9,599	45	1,544	0	0	0	45	837
2035	4.46%	718	13,575	662	11,249	600	10,199	45	1,544	0	0	0	45	883
2036	4.46%	718	14,293	662	11,910	600	10,799	45	1,544	0	0	0	45	928
2037	4.46%	718	15,010	662	12,572	600	11,399	45	1,544	0	0	0	45	973
2038	4.46%	718	15,728	662	13,234	600	11,999	45	1,544	0	0	0	45	1,019
2039	2.23%	359	16,087	662	13,895	600	12,598	(93)	1,544	0	0	0	(93)	926
2040	0.00%	0	16,087	662	14,557	600	13,198	(231)	1,544	0	0	0	(231)	694
2041	0.00%	0	16,087	662	15,219	600	13,798	(231)	1,544	0	0	0	(231)	463
2042	0.00%	0	16,087	662	15,881	600	14,398	(231)	1,544	0	0	0	(231)	232
2043	0.00%	0	16,087	662	16,542	600	14,998	(231)	1,544	0	0	0	(231)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(420)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	1,544
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

page 4b

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PSC FORM CE 1.1A

PROGRAM METHOD SELECTED: REV_REQ

PAGE 2b OF 2

PROGRAM NAME: **Business Refrigeration**

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
				END OF YEAR NET PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	603	1	15,881	662	(419)	16,962	16,299	16,631
2020	7.22%	1,161	217	15,219	1,323	(202)	16,299	15,421	15,860
2021	6.68%	1,074	183	14,557	1,985	(19)	15,421	14,576	14,999
2022	6.18%	994	152	13,895	2,647	133	14,576	13,762	14,169
2023	5.71%	919	123	13,234	3,308	256	13,762	12,978	13,370
2024	5.29%	850	97	12,572	3,970	353	12,978	12,219	12,599
2025	4.89%	786	72	11,910	4,632	425	12,219	11,486	11,853
2026	4.52%	727	49	11,249	5,294	474	11,486	10,775	11,130
2027	4.46%	718	45	10,587	5,955	519	10,775	10,068	10,421
2028	4.46%	718	45	9,925	6,617	565	10,068	9,361	9,714
2029	4.46%	718	45	9,264	7,279	610	9,361	8,654	9,007
2030	4.46%	718	45	8,602	7,940	655	8,654	7,947	8,300
2031	4.46%	718	45	7,940	8,602	701	7,947	7,239	7,593
2032	4.46%	718	45	7,279	9,264	746	7,239	6,532	6,886
2033	4.46%	718	45	6,617	9,925	792	6,532	5,825	6,179
2034	4.46%	718	45	5,955	10,587	837	5,825	5,118	5,472
2035	4.46%	718	45	5,294	11,249	883	5,118	4,411	4,764
2036	4.46%	718	45	4,632	11,910	928	4,411	3,704	4,057
2037	4.46%	718	45	3,970	12,572	973	3,704	2,997	3,350
2038	4.46%	718	45	3,308	13,234	1,019	2,997	2,290	2,643
2039	2.23%	359	(93)	2,647	13,895	926	2,290	1,721	2,005
2040	0.00%	0	(231)	1,985	14,557	694	1,721	1,291	1,506
2041	0.00%	0	(231)	1,323	15,219	463	1,291	860	1,075
2042	0.00%	0	(231)	662	15,881	232	860	430	645
2043	0.00%	0	(231)	(0)	16,542	0	430	0	215

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	14,105	14,105	14,105
EQUITY AFUDC	1,544		
DEBT AFUDC	893	893	
CPI			1,981
TOTAL	16,542	14,998	16,086

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: **Business Refrigeration**

PSC FORM CE 2.3
 PAGE 1 OF 1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	58	1,191	0	1,249	0	0	163	1	164	(1,086)	(997)
2011	0	163	2,788	0	2,951	0	31	697	2	730	(2,222)	(2,871)
2012	0	144	2,072	0	2,217	0	104	1,369	3	1,476	(740)	(3,444)
2013	0	158	2,199	0	2,357	0	162	2,138	217	2,517	161	(3,330)
2014	0	152	2,117	0	2,269	0	218	2,948	312	3,478	1,209	(2,540)
2015	0	138	1,908	0	2,046	0	271	3,838	416	4,525	2,479	(1,052)
2016	0	147	1,964	0	2,111	0	317	4,936	536	5,789	3,678	974
2017	0	155	2,079	0	2,235	0	362	6,084	669	7,114	4,880	3,444
2018	0	161	2,158	0	2,319	0	409	7,369	817	8,595	6,276	6,361
2019	0	0	0	0	0	2,781	453	8,501	820	12,554	12,554	11,719
2020	0	18	250	0	268	2,585	440	8,927	842	12,794	12,526	16,529
2021	0	59	977	0	1,036	2,480	427	9,285	905	13,097	12,061	20,971
2022	0	83	1,305	0	1,389	2,465	415	9,650	1,012	13,542	12,153	24,989
2023	0	110	1,655	0	1,765	2,510	403	9,897	1,074	13,884	12,119	28,668
2024	0	94	1,461	0	1,555	2,538	391	10,307	1,188	14,424	12,868	32,257
2025	0	118	2,375	0	2,493	2,533	379	10,639	1,302	14,853	12,361	35,422
2026	0	152	3,101	0	3,252	2,550	368	10,864	1,370	15,153	11,901	38,221
2027	0	170	2,556	0	2,727	2,571	357	11,180	1,488	15,596	12,869	41,001
2028	0	180	2,590	0	2,770	2,559	345	11,525	1,624	16,053	13,283	43,635
2029	0	149	1,817	0	1,967	2,626	334	11,840	1,811	16,611	14,644	46,303
2030	0	185	2,283	0	2,467	2,625	323	12,207	1,947	17,102	14,635	48,752
2031	0	186	2,514	0	2,700	2,605	312	12,618	2,117	17,653	14,953	51,049
2032	0	210	2,845	0	3,055	2,687	301	12,935	2,294	18,217	15,162	53,189
2033	0	228	3,122	0	3,351	2,681	291	13,504	2,440	18,916	15,565	55,206
2034	0	226	3,066	0	3,292	2,805	282	13,840	2,630	19,558	16,266	57,142
2035	0	78	1,298	0	1,376	2,848	274	14,463	2,847	20,431	19,055	59,225
2036	0	95	1,560	0	1,655	2,821	266	15,071	3,074	21,232	19,577	61,190
2037	0	105	1,699	0	1,804	2,881	259	15,602	3,322	22,065	20,261	63,058
2038	0	113	1,817	0	1,930	2,800	253	16,270	3,583	22,906	20,976	64,834
2039	0	63	711	0	774	2,751	248	16,834	3,865	23,697	22,923	66,616
2040	0	169	3,018	0	3,186	2,870	243	17,435	4,162	24,711	21,524	68,153
2041	0	268	5,001	0	5,270	2,842	238	18,131	4,474	25,685	20,415	69,492
2042	0	208	3,263	0	3,471	2,792	234	18,846	4,912	26,784	23,313	70,896
2043	0	243	3,624	0	3,867	2,801	229	19,756	5,386	28,172	24,305	72,241
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	4,788	72,384	0	77,171	67,006	9,939	359,669	63,462	500,077	422,905	
NPV	0	1,356	20,349	0	21,706	12,093	2,750	69,532	9,572	93,946	72,241	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) :

4.33

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Refrigeration

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	201	0	391	0	591	1,191	0	0	1,191	(599)	(550)
2011	919	0	842	0	1,761	2,788	0	0	2,788	(1,028)	(1,417)
2012	1,904	0	551	0	2,455	2,072	0	0	2,072	382	(1,121)
2013	2,928	0	562	0	3,491	2,199	0	0	2,199	1,292	(202)
2014	4,119	0	451	0	4,569	2,117	0	0	2,117	2,452	1,400
2015	5,339	0	356	0	5,696	1,908	0	0	1,908	3,787	3,623
2016	6,577	0	346	0	6,924	1,964	0	0	1,964	4,960	6,406
2017	7,892	0	359	0	8,252	2,079	0	0	2,079	6,173	9,529
2018	9,222	0	366	0	9,588	2,158	0	0	2,158	7,430	12,982
2019	10,237	0	0	0	10,237	0	0	0	0	10,237	17,352
2020	10,284	0	83	0	10,367	250	0	0	250	10,117	21,317
2021	10,591	0	269	0	10,860	977	0	0	977	9,883	24,875
2022	11,042	0	331	0	11,373	1,305	0	0	1,305	10,068	28,204
2023	11,471	0	382	0	11,852	1,655	0	0	1,655	10,198	31,300
2024	12,116	0	259	0	12,375	1,461	0	0	1,461	10,914	34,343
2025	12,726	0	448	0	13,173	2,375	0	0	2,375	10,799	37,109
2026	13,356	0	630	0	13,986	3,101	0	0	3,101	10,886	39,669
2027	14,226	0	383	0	14,608	2,556	0	0	2,556	12,052	42,272
2028	14,923	0	364	0	15,287	2,590	0	0	2,590	12,697	44,791
2029	15,744	0	221	0	15,965	1,817	0	0	1,817	14,147	47,368
2030	16,673	0	316	0	16,989	2,283	0	0	2,283	14,707	49,828
2031	17,592	0	415	0	18,007	2,514	0	0	2,514	15,493	52,209
2032	18,797	0	471	0	19,268	2,845	0	0	2,845	16,422	54,526
2033	20,716	0	509	0	21,225	3,122	0	0	3,122	18,103	56,872
2034	21,125	0	399	0	21,523	3,066	0	0	3,066	18,457	59,069
2035	22,199	0	147	0	22,346	1,298	0	0	1,298	21,048	61,370
2036	24,033	0	182	0	24,215	1,560	0	0	1,560	22,655	63,644
2037	25,451	0	192	0	25,643	1,699	0	0	1,699	23,944	65,851
2038	26,734	0	200	0	26,934	1,817	0	0	1,817	25,117	67,978
2039	28,140	0	45	0	28,185	711	0	0	711	27,475	70,114
2040	29,640	0	423	0	30,063	3,018	0	0	3,018	27,046	72,046
2041	31,419	0	758	0	32,177	5,001	0	0	5,001	27,175	73,828
2042	33,318	0	450	0	33,768	3,263	0	0	3,263	30,505	75,665
2043	35,346	0	497	0	35,843	3,624	0	0	3,624	32,219	77,447
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
NOM	526,998	0	12,597	0	539,596	72,384	0	0	72,384	467,212	
NPV	93,461	0	4,335	0	97,796	20,349	0	0	20,349	77,447	

In Service of Gen Unit:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019
8.89 %
4.81

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: **Business Refrigeration**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
YEAR	INCREASED	UTILITY	REVENUE	OTHER	TOTAL	AVOIDED GEN		AVOIDED		REVENUE	OTHER	TOTAL	NET	CUMULATIVE
	SUPPLY	PROGRAM				UNIT & FUEL	T&D	GAINS	BENEFITS					
	COSTS	COSTS	LOSSES	COSTS	COSTS	COSTS	BENEFITS	BENEFITS	BENEFITS	BENEFITS	BENEFITS	BENEFITS	BENEFITS	NET BENEFITS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	58	391	171	0	620	163	0	0	1	164	(456)	(419)	
2011	0	163	842	782	0	1,787	697	31	0	2	730	(1,057)	(1,311)	
2012	0	144	551	1,622	0	2,317	1,369	104	0	3	1,476	(841)	(1,962)	
2013	0	158	562	2,492	0	3,212	2,138	162	0	217	2,517	(695)	(2,456)	
2014	0	152	451	3,503	0	4,106	2,948	218	0	312	3,478	(628)	(2,867)	
2015	0	138	356	4,540	0	5,034	3,838	271	0	416	4,525	(508)	(3,172)	
2016	0	147	346	5,586	0	6,079	4,956	317	0	536	5,789	(290)	(3,331)	
2017	0	155	359	6,701	0	7,215	6,084	362	0	669	7,114	(101)	(3,382)	
2018	0	161	366	7,823	0	8,350	7,369	409	0	817	8,595	245	(3,269)	
2019	0	0	0	8,672	0	8,672	11,281	453	0	820	12,554	3,882	(1,612)	
2020	0	18	83	8,707	0	8,808	11,512	440	0	842	12,794	3,986	(49)	
2021	0	59	269	8,959	0	9,287	11,765	427	0	905	13,097	3,810	1,322	
2022	0	83	331	9,332	0	9,746	12,115	415	0	1,012	13,542	3,795	2,577	
2023	0	110	382	9,688	0	10,180	12,407	403	0	1,074	13,884	3,703	3,702	
2024	0	94	259	10,226	0	10,579	12,845	391	0	1,188	14,424	3,845	4,774	
2025	0	118	448	10,727	0	11,293	13,172	379	0	1,302	14,853	3,561	5,686	
2026	0	152	630	11,251	0	12,033	13,414	368	0	1,370	15,153	3,120	6,419	
2027	0	170	383	11,974	0	12,527	13,751	357	0	1,488	15,596	3,068	7,082	
2028	0	180	364	12,555	0	13,099	14,084	345	0	1,624	16,053	2,954	7,668	
2029	0	149	221	13,237	0	13,607	14,466	334	0	1,811	16,611	3,004	8,215	
2030	0	185	316	14,010	0	14,511	14,832	323	0	1,947	17,102	2,591	8,649	
2031	0	186	415	14,774	0	15,375	15,224	312	0	2,117	17,653	2,278	8,999	
2032	0	210	471	15,777	0	16,458	15,622	301	0	2,294	18,217	1,759	9,247	
2033	0	228	509	17,376	0	18,113	16,184	291	0	2,440	18,916	803	9,351	
2034	0	226	399	17,718	0	18,342	16,645	282	0	2,630	19,558	1,215	9,496	
2035	0	78	147	18,606	0	18,831	17,311	274	0	2,847	20,431	1,600	9,671	
2036	0	95	182	20,131	0	20,408	17,892	266	0	3,074	21,232	824	9,753	
2037	0	105	192	21,312	0	21,609	18,484	259	0	3,322	22,065	455	9,795	
2038	0	113	200	22,378	0	22,691	19,070	253	0	3,583	22,906	215	9,813	
2039	0	63	45	23,546	0	23,654	19,585	248	0	3,865	23,697	43	9,817	
2040	0	169	423	24,792	0	25,383	20,305	243	0	4,162	24,711	(673)	9,769	
2041	0	268	758	26,269	0	27,295	20,973	238	0	4,474	25,685	(1,610)	9,663	
2042	0	208	450	27,846	0	28,504	21,639	234	0	4,912	26,784	(1,720)	9,560	
2043	0	243	497	29,531	0	30,271	22,557	229	0	5,386	28,172	(2,099)	9,443	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	
NOM.	0	4,788	12,597	442,614	0	459,999	426,676	9,939	0	63,462	500,077	40,078		
NPV	0	1,356	4,335	78,811	0	84,503	81,625	2,750	0	9,572	93,946	9,443		

Discount Rate

Benefit/Cost Ratio (Col(12) / Col(7)) :

8.89 %

1.11

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: **Business Solar Water Heating**

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	305	9	0	21	14	5	2	12	0	64	64	64	297
2020	293	9	0	20	10	5	2	12	4	62	57	120	305
2021	277	9	0	19	10	5	2	12	3	59	50	170	312
2022	262	8	0	18	9	4	2	12	3	57	44	215	320
2023	247	8	0	17	9	4	2	12	2	55	39	253	328
2024	233	7	0	16	9	4	2	12	2	52	34	288	336
2025	220	7	0	15	9	4	2	12	1	50	30	318	345
2026	206	6	0	14	9	4	2	12	1	48	27	345	354
2027	194	6	0	14	8	3	2	12	1	46	23	368	362
2028	181	6	0	13	8	3	2	12	1	44	21	388	371
2029	168	5	0	12	7	3	2	12	1	42	18	407	381
2030	156	5	0	11	7	3	2	12	1	40	16	422	390
2031	143	4	0	10	6	3	2	12	1	38	14	436	400
2032	130	4	0	9	6	2	3	12	1	36	12	448	410
2033	117	4	0	8	5	2	3	12	1	34	10	459	420
2034	105	3	0	7	4	2	3	12	1	32	9	468	431
2035	92	3	0	6	4	2	3	12	1	30	8	475	441
2036	79	2	0	6	3	1	3	12	1	28	7	482	453
2037	67	2	0	5	3	1	3	12	1	26	6	488	464
2038	54	2	0	4	2	1	3	12	1	24	5	492	475
2039	41	1	0	3	4	1	3	12	(2)	22	4	497	487
2040	31	1	0	2	6	1	3	12	(4)	21	3	500	500
2041	23	1	0	2	6	0	3	12	(4)	20	3	503	512
2042	15	0	0	1	6	0	3	12	(4)	18	3	506	525
2043	8	0	0	1	5	0	3	12	(4)	17	2	508	538

IN SERVICE COST (\$000)	297
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Solar Water Heating

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	11	11	12	12	11	11	0	28	0	0	0	0	(8)
2020	7.22%	21	32	12	24	11	22	4	28	0	0	0	4	(4)
2021	6.68%	19	51	12	36	11	32	3	28	0	0	0	3	(0)
2022	6.18%	18	69	12	48	11	43	3	28	0	0	0	3	2
2023	5.71%	17	85	12	59	11	54	2	28	0	0	0	2	5
2024	5.29%	15	101	12	71	11	65	2	28	0	0	0	2	6
2025	4.89%	14	115	12	83	11	75	1	28	0	0	0	1	8
2026	4.52%	13	128	12	95	11	86	1	28	0	0	0	1	9
2027	4.46%	13	141	12	107	11	97	1	28	0	0	0	1	9
2028	4.46%	13	154	12	119	11	108	1	28	0	0	0	1	10
2029	4.46%	13	167	12	131	11	119	1	28	0	0	0	1	11
2030	4.46%	13	180	12	143	11	129	1	28	0	0	0	1	12
2031	4.46%	13	192	12	155	11	140	1	28	0	0	0	1	13
2032	4.46%	13	205	12	167	11	151	1	28	0	0	0	1	13
2033	4.46%	13	218	12	178	11	162	1	28	0	0	0	1	14
2034	4.46%	13	231	12	190	11	173	1	28	0	0	0	1	15
2035	4.46%	13	244	12	202	11	183	1	28	0	0	0	1	16
2036	4.46%	13	257	12	214	11	194	1	28	0	0	0	1	17
2037	4.46%	13	270	12	226	11	205	1	28	0	0	0	1	18
2038	4.46%	13	283	12	238	11	216	1	28	0	0	0	1	18
2039	2.23%	6	289	12	250	11	226	(2)	28	0	0	0	(2)	17
2040	0.00%	0	289	12	262	11	237	(4)	28	0	0	0	(4)	12
2041	0.00%	0	289	12	274	11	248	(4)	28	0	0	0	(4)	8
2042	0.00%	0	289	12	286	11	259	(4)	28	0	0	0	(4)	4
2043	0.00%	0	289	12	297	11	270	(4)	28	0	0	0	(4)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(8)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	28
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: **Business Solar Water Heating**

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
				END OF YEAR NET			BEGINNING YEAR RATE	ENDING OF YEAR RATE	
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BASE \$(000)	BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	11	0	286	12	(8)	305	293	299
2020	7.22%	21	4	274	24	(4)	293	277	285
2021	6.68%	19	3	262	36	(0)	277	262	270
2022	6.18%	18	3	250	48	2	262	247	255
2023	5.71%	17	2	238	59	5	247	233	240
2024	5.29%	15	2	226	71	6	233	220	227
2025	4.89%	14	1	214	83	8	220	206	213
2026	4.52%	13	1	202	95	9	206	194	200
2027	4.46%	13	1	190	107	9	194	181	187
2028	4.46%	13	1	178	119	10	181	168	175
2029	4.46%	13	1	167	131	11	168	156	162
2030	4.46%	13	1	155	143	12	156	143	149
2031	4.46%	13	1	143	155	13	143	130	137
2032	4.46%	13	1	131	167	13	130	117	124
2033	4.46%	13	1	119	178	14	117	105	111
2034	4.46%	13	1	107	190	15	105	92	98
2035	4.46%	13	1	95	202	16	92	79	86
2036	4.46%	13	1	83	214	17	79	67	73
2037	4.46%	13	1	71	226	18	67	54	60
2038	4.46%	13	1	59	238	18	54	41	48
2039	2.23%	6	(2)	48	250	17	41	31	36
2040	0.00%	0	(4)	36	262	12	31	23	27
2041	0.00%	0	(4)	24	274	8	23	15	19
2042	0.00%	0	(4)	12	286	4	15	8	12
2043	0.00%	0	(4)	0	297	0	8	0	4

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805.5
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	254	254	254
EQUITY AFUDC	28		
DEBT AFUDC	16	16	
CPI			36
TOTAL	297	270	289

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Solar Water Heating

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	86	76	0	162	0	0	2	0	2	(160)	(147)
2011	0	178	288	0	466	0	1	11	0	12	(455)	(531)
2012	0	262	359	0	621	0	3	26	0	29	(592)	(990)
2013	0	378	446	0	824	0	6	45	4	55	(769)	(1,537)
2014	0	447	550	0	997	0	9	70	6	86	(912)	(2,132)
2015	0	0	0	0	0	0	13	91	9	113	113	(2,065)
2016	0	0	0	0	0	0	13	110	10	132	132	(1,992)
2017	0	0	0	0	0	0	12	121	11	144	144	(1,919)
2018	0	0	0	0	0	0	12	129	12	152	152	(1,848)
2019	0	0	0	0	0	77	11	146	9	243	243	(1,745)
2020	0	0	0	0	0	71	11	152	9	243	243	(1,649)
2021	0	0	0	0	0	68	11	157	9	246	246	(1,561)
2022	0	0	0	0	0	68	11	163	10	251	251	(1,478)
2023	0	0	0	0	0	69	10	162	11	252	252	(1,401)
2024	0	0	0	0	0	70	10	169	12	260	260	(1,329)
2025	0	0	0	0	0	70	10	173	13	265	265	(1,261)
2026	0	0	0	0	0	70	9	174	13	266	266	(1,198)
2027	0	0	0	0	0	71	9	175	14	269	269	(1,140)
2028	0	0	0	0	0	70	9	178	15	273	273	(1,086)
2029	0	0	0	0	0	72	8	178	17	276	276	(1,036)
2030	0	0	0	0	0	72	8	182	18	281	281	(989)
2031	0	0	0	0	0	72	8	188	19	287	287	(945)
2032	0	0	0	0	0	74	8	187	21	289	289	(904)
2033	0	0	0	0	0	74	7	193	21	296	296	(866)
2034	0	0	0	0	0	77	7	191	23	298	298	(830)
2035	0	0	0	0	0	78	7	203	25	313	313	(796)
2036	0	0	0	0	0	78	7	213	26	323	323	(764)
2037	0	0	0	0	0	79	7	218	28	332	332	(733)
2038	0	0	0	0	0	77	7	227	31	341	341	(704)
2039	0	0	0	0	0	76	6	233	33	348	348	(677)
2040	0	0	0	0	0	79	6	238	35	359	359	(652)
2041	0	0	0	0	0	78	6	247	38	369	369	(627)
2042	0	0	0	0	0	77	6	256	43	383	383	(604)
2043	0	0	0	0	0	77	6	273	50	405	405	(582)
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
NOM	0	1,352	1,720	0	3,071	1,845	272	5,482	594	8,192	5,121	
NPV	0	994	1,268	0	2,261	333	81	1,163	102	1,680	(582)	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)):

0.74

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Solar Water Heating

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REFRAITS \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	3	23	17	0	43	76	0	0	76	(33)	(30)
2011	16	87	63	0	166	288	0	0	288	(122)	(133)
2012	41	109	76	0	227	359	0	0	359	(133)	(236)
2013	75	135	92	0	302	446	0	0	446	(144)	(339)
2014	120	167	111	0	398	550	0	0	550	(153)	(438)
2015	150	0	0	0	150	0	0	0	0	150	(348)
2016	155	0	0	0	155	0	0	0	0	155	(263)
2017	162	0	0	0	162	0	0	0	0	162	(181)
2018	166	0	0	0	166	0	0	0	0	166	(104)
2019	171	0	0	0	171	0	0	0	0	171	(31)
2020	171	0	0	0	171	0	0	0	0	171	36
2021	174	0	0	0	174	0	0	0	0	174	99
2022	180	0	0	0	180	0	0	0	0	180	158
2023	185	0	0	0	185	0	0	0	0	185	214
2024	194	0	0	0	194	0	0	0	0	194	268
2025	201	0	0	0	201	0	0	0	0	201	320
2026	209	0	0	0	209	0	0	0	0	209	369
2027	221	0	0	0	221	0	0	0	0	221	417
2028	230	0	0	0	230	0	0	0	0	230	462
2029	241	0	0	0	241	0	0	0	0	241	506
2030	253	37	0	0	291	0	0	0	0	291	555
2031	266	141	0	0	407	0	0	0	0	407	618
2032	282	176	0	0	458	0	0	0	0	458	682
2033	308	219	0	0	527	0	0	0	0	527	750
2034	314	269	0	0	584	0	0	0	0	584	820
2035	327	0	0	0	327	0	0	0	0	327	856
2036	352	0	0	0	352	0	0	0	0	352	891
2037	371	0	0	0	371	0	0	0	0	371	925
2038	388	0	0	0	388	0	0	0	0	388	958
2039	406	0	0	0	406	0	0	0	0	406	990
2040	426	0	0	0	426	0	0	0	0	426	1,020
2041	449	0	0	0	449	0	0	0	0	449	1,049
2042	474	0	0	0	474	0	0	0	0	474	1,078
2043	500	0	0	0	500	0	0	0	0	500	1,106
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
NOM	8,181	1,364	359	0	9,903	1,720	0	0	1,720	8,183	
NPV	1,611	498	265	0	2,374	1,268	0	0	1,268	1,106	

In Service of Gen Unit:

2019

Discount Rate :

8.89 %

Benefit/Cost Ratio (Col(6) / Col(10))

1.87

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Business Solar Water Heating

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	86	17	2	0	106	2	0	0	0	2	(104)	(95)
2011	0	178	63	14	0	255	11	1	0	0	12	(243)	(301)
2012	0	262	76	36	0	375	26	3	0	0	29	(345)	(568)
2013	0	378	92	66	0	536	45	6	0	4	55	(481)	(910)
2014	0	447	111	106	0	664	70	9	0	6	86	(578)	(1,288)
2015	0	0	0	132	0	132	91	13	0	9	113	(19)	(1,300)
2016	0	0	0	137	0	137	110	13	0	10	132	(5)	(1,302)
2017	0	0	0	142	0	142	121	12	0	11	144	1	(1,302)
2018	0	0	0	145	0	145	129	12	0	12	152	7	(1,298)
2019	0	0	0	150	0	150	222	11	0	9	243	93	(1,259)
2020	0	0	0	149	0	149	223	11	0	9	243	94	(1,222)
2021	0	0	0	152	0	152	225	11	0	9	246	94	(1,188)
2022	0	0	0	156	0	156	230	11	0	10	251	95	(1,157)
2023	0	0	0	161	0	161	231	10	0	11	252	91	(1,129)
2024	0	0	0	169	0	169	238	10	0	12	260	92	(1,104)
2025	0	0	0	174	0	174	242	10	0	13	265	91	(1,080)
2026	0	0	0	181	0	181	244	9	0	13	266	85	(1,060)
2027	0	0	0	191	0	191	246	9	0	14	269	78	(1,043)
2028	0	0	0	199	0	199	249	9	0	15	273	74	(1,029)
2029	0	0	0	208	0	208	251	8	0	17	276	68	(1,016)
2030	0	0	0	218	0	218	255	8	0	18	281	63	(1,006)
2031	0	0	0	228	0	228	260	8	0	19	287	59	(997)
2032	0	0	0	242	0	242	261	8	0	21	289	47	(990)
2033	0	0	0	264	0	264	267	7	0	21	296	32	(986)
2034	0	0	0	269	0	269	269	7	0	23	298	29	(983)
2035	0	0	0	280	0	280	281	7	0	25	313	33	(979)
2036	0	0	0	300	0	300	290	7	0	26	323	24	(977)
2037	0	0	0	316	0	316	297	7	0	28	332	16	(975)
2038	0	0	0	330	0	330	304	7	0	31	341	11	(974)
2039	0	0	0	345	0	345	309	6	0	33	348	2	(974)
2040	0	0	0	362	0	362	318	6	0	35	359	(3)	(974)
2041	0	0	0	381	0	381	326	6	0	38	369	(12)	(975)
2042	0	0	0	402	0	402	333	6	0	43	383	(19)	(976)
2043	0	0	0	424	0	424	350	6	0	50	405	(18)	(977)
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
NOM.	0	1,352	359	7,031	0	8,741	7,326	272	0	594	8,192	(549)	
NPV	0	994	265	1,398	0	2,657	1,496	81	0	102	1,680	(977)	

Discount Rate 8.89 %
Benefit/Cost Ratio (Col(12) / Col(7)) : 0.632

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: **Business Water Heating**

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	WORTH	PW FIXED	COST BASIS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	6,299	196	0	440	290	106	37	246	0	1,315	1,315	1,315	6,144
2020	6,053	188	0	422	199	102	38	246	80	1,276	1,172	2,487	6,297
2021	5,727	178	0	400	197	97	39	246	68	1,225	1,034	3,521	6,455
2022	5,413	168	0	378	195	93	40	246	56	1,177	911	4,432	6,616
2023	5,111	159	0	357	193	88	41	246	46	1,129	803	5,236	6,781
2024	4,820	150	0	336	190	84	42	246	36	1,084	708	5,944	6,951
2025	4,538	141	0	317	187	80	43	246	27	1,040	624	6,568	7,125
2026	4,266	133	0	298	183	75	45	246	18	997	549	7,117	7,303
2027	4,002	124	0	279	173	71	46	246	17	956	484	7,600	7,485
2028	3,739	116	0	261	161	66	47	246	17	914	425	8,025	7,672
2029	3,476	108	0	243	150	62	48	246	17	873	373	8,398	7,864
2030	3,214	100	0	224	138	58	49	246	17	832	326	8,724	8,061
2031	2,951	92	0	206	127	53	50	246	17	791	285	9,009	8,262
2032	2,689	84	0	188	115	49	52	246	17	749	248	9,256	8,469
2033	2,426	75	0	169	104	44	53	246	17	708	215	9,472	8,681
2034	2,163	67	0	151	92	40	54	246	17	667	186	9,658	8,898
2035	1,901	59	0	133	81	35	56	246	17	626	160	9,818	9,120
2036	1,638	51	0	114	69	31	57	246	17	585	138	9,956	9,348
2037	1,376	43	0	96	58	27	58	246	17	544	118	10,073	9,582
2038	1,113	35	0	78	46	22	60	246	17	503	100	10,173	9,821
2039	850	26	0	59	36	18	61	246	(35)	462	84	10,257	10,067
2040	639	20	0	45	28	13	63	246	(86)	429	72	10,329	10,319
2041	479	15	0	33	21	9	65	246	(86)	403	62	10,391	10,577
2042	320	10	0	22	14	4	66	246	(86)	377	53	10,444	10,841
2043	160	5	0	11	7	(0)	68	246	(86)	351	45	10,489	11,112

IN SERVICE COST (\$000)	6,144
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Business Water Heating

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	224	224	246	246	223	223	0	573	0	0	0	0	(155)
2020	7.22%	431	655	246	491	223	446	80	573	0	0	0	80	(75)
2021	6.68%	399	1,054	246	737	223	668	68	573	0	0	0	68	(7)
2022	6.18%	369	1,423	246	983	223	891	56	573	0	0	0	56	49
2023	5.71%	341	1,765	246	1,229	223	1,114	46	573	0	0	0	46	95
2024	5.29%	316	2,080	246	1,474	223	1,337	36	573	0	0	0	36	131
2025	4.89%	292	2,373	246	1,720	223	1,560	27	573	0	0	0	27	158
2026	4.52%	270	2,643	246	1,966	223	1,782	18	573	0	0	0	18	176
2027	4.46%	267	2,909	246	2,212	223	2,005	17	573	0	0	0	17	193
2028	4.46%	267	3,176	246	2,457	223	2,228	17	573	0	0	0	17	210
2029	4.46%	267	3,442	246	2,703	223	2,451	17	573	0	0	0	17	227
2030	4.46%	267	3,709	246	2,949	223	2,674	17	573	0	0	0	17	243
2031	4.46%	267	3,975	246	3,195	223	2,896	17	573	0	0	0	17	260
2032	4.46%	267	4,242	246	3,440	223	3,119	17	573	0	0	0	17	277
2033	4.46%	267	4,508	246	3,686	223	3,342	17	573	0	0	0	17	294
2034	4.46%	267	4,775	246	3,932	223	3,565	17	573	0	0	0	17	311
2035	4.46%	267	5,042	246	4,178	223	3,788	17	573	0	0	0	17	328
2036	4.46%	267	5,308	246	4,423	223	4,010	17	573	0	0	0	17	345
2037	4.46%	267	5,575	246	4,669	223	4,233	17	573	0	0	0	17	362
2038	4.46%	267	5,841	246	4,915	223	4,456	17	573	0	0	0	17	378
2039	2.23%	133	5,974	246	5,161	223	4,679	(35)	573	0	0	0	(35)	344
2040	0.00%	0	5,974	246	5,406	223	4,902	(86)	573	0	0	0	(86)	258
2041	0.00%	0	5,974	246	5,652	223	5,125	(86)	573	0	0	0	(86)	172
2042	0.00%	0	5,974	246	5,898	223	5,347	(86)	573	0	0	0	(86)	86
2043	0.00%	0	5,974	246	6,144	223	5,570	(86)	573	0	0	0	(86)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(156)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	573
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

page 4b

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: **Business Water Heating**

PSC FORM CE 1.1A

PAGE 2b OF 2

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
				END OF YEAR NET PLANT IN SERVICE			BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	YEAR RATE BASE \$(000)	YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	224	0	5,898	246	(155)	6,299	6,053	6,176
2020	7.22%	431	80	5,652	491	(75)	6,053	5,727	5,890
2021	6.68%	399	68	5,406	737	(7)	5,727	5,413	5,570
2022	6.18%	369	56	5,161	983	49	5,413	5,111	5,262
2023	5.71%	341	46	4,915	1,229	95	5,111	4,820	4,965
2024	5.29%	316	36	4,669	1,474	131	4,820	4,538	4,679
2025	4.89%	292	27	4,423	1,720	158	4,538	4,266	4,402
2026	4.52%	270	18	4,178	1,966	176	4,266	4,002	4,134
2027	4.46%	267	17	3,932	2,212	193	4,002	3,739	3,870
2028	4.46%	267	17	3,686	2,457	210	3,739	3,476	3,608
2029	4.46%	267	17	3,440	2,703	227	3,476	3,214	3,345
2030	4.46%	267	17	3,195	2,949	243	3,214	2,951	3,083
2031	4.46%	267	17	2,949	3,195	260	2,951	2,689	2,820
2032	4.46%	267	17	2,703	3,440	277	2,689	2,426	2,557
2033	4.46%	267	17	2,457	3,686	294	2,426	2,163	2,295
2034	4.46%	267	17	2,212	3,932	311	2,163	1,901	2,032
2035	4.46%	267	17	1,966	4,178	328	1,901	1,638	1,769
2036	4.46%	267	17	1,720	4,423	345	1,638	1,376	1,507
2037	4.46%	267	17	1,474	4,669	362	1,376	1,113	1,244
2038	4.46%	267	17	1,229	4,915	378	1,113	850	982
2039	2.23%	133	(35)	983	5,161	344	850	639	745
2040	0.00%	0	(86)	737	5,406	258	639	479	559
2041	0.00%	0	(86)	491	5,652	172	479	320	399
2042	0.00%	0	(86)	246	5,898	86	320	160	240
2043	0.00%	0	(86)	(0)	6,144	0	160	0	80

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(2) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805.5
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	5,239	5,239	5,239
EQUITY AFUDC	573		
DEBT AFUDC	332	332	
CPI			736
TOTAL	6,144	5,570	5,974

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: **Business Water Heating**

(1) YEAR	(2) INCREASED SUPPLY COSTS \$(000)	(3) UTILITY PROGRAM COSTS \$(000)	(4) PARTICIPANT PROGRAM COSTS \$(000)	(5) OTHER COSTS \$(000)	(6) TOTAL COSTS \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)	(8) AVOIDED T&D BENEFITS \$(000)	(9) PROGRAM FUEL SAVINGS \$(000)	(10) OTHER BENEFITS \$(000)	(11) TOTAL BENEFITS \$(000)	(12) NET BENEFITS \$(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	72	1,420	0	1,492	0	0	112	0	112	(1,379)	(1,267)
2011	0	84	1,494	0	1,578	0	26	345	1	372	(1,205)	(2,283)
2012	0	94	1,681	0	1,775	0	56	612	2	669	(1,106)	(3,140)
2013	0	186	3,706	0	3,892	0	93	1,098	108	1,299	(2,593)	(4,985)
2014	0	118	2,108	0	2,226	0	157	1,662	171	1,990	(235)	(5,138)
2015	0	75	1,332	0	1,407	0	195	2,131	224	2,550	1,143	(4,452)
2016	0	46	830	0	876	0	216	2,622	273	3,111	2,235	(3,221)
2017	0	48	850	0	898	0	227	3,019	320	3,565	2,667	(1,871)
2018	0	49	872	0	920	0	238	3,458	369	4,065	3,145	(410)
2019	0	0	0	0	0	1,580	248	3,919	347	6,094	6,094	2,191
2020	0	0	0	0	0	1,469	241	4,129	349	6,188	6,188	4,617
2021	0	0	0	0	0	1,409	234	4,298	375	6,316	6,316	6,891
2022	0	0	0	0	0	1,401	228	4,464	418	6,510	6,510	9,043
2023	0	0	0	0	0	1,426	221	4,565	442	6,654	6,654	11,064
2024	0	0	0	0	0	1,442	215	4,744	490	6,890	6,890	12,985
2025	0	63	1,130	0	1,194	1,439	208	4,893	535	7,075	5,881	14,491
2026	0	163	3,112	0	3,276	1,449	202	4,979	560	7,189	3,914	15,412
2027	0	136	2,434	0	2,570	1,461	195	5,110	608	7,374	4,804	16,449
2028	0	153	2,733	0	2,885	1,454	189	5,257	662	7,562	4,677	17,377
2029	0	291	5,752	0	6,043	1,492	183	5,377	737	7,789	1,746	17,695
2030	0	108	1,930	0	2,038	1,492	177	5,531	791	7,991	5,953	18,691
2031	0	67	1,201	0	1,269	1,480	170	5,712	861	8,224	6,955	19,759
2032	0	69	1,232	0	1,301	1,527	165	5,825	931	8,447	7,147	20,768
2033	0	71	1,262	0	1,333	1,523	159	6,032	982	8,697	7,364	21,722
2034	0	0	0	0	0	1,594	154	6,139	1,056	8,944	8,944	22,787
2035	0	0	0	0	0	1,618	150	6,432	1,143	9,342	9,342	23,808
2036	0	0	0	0	0	1,603	146	6,691	1,233	9,672	9,672	24,779
2037	0	0	0	0	0	1,637	143	6,915	1,331	10,026	10,026	25,703
2038	0	0	0	0	0	1,591	140	7,215	1,436	10,381	10,381	26,582
2039	0	0	0	0	0	1,563	137	7,449	1,546	10,695	10,695	27,414
2040	0	92	1,637	0	1,729	1,631	134	7,704	1,665	11,134	9,405	28,085
2041	0	175	3,134	0	3,309	1,615	132	8,010	1,789	11,546	8,236	28,625
2042	0	260	4,934	0	5,193	1,587	129	8,324	1,982	12,021	6,828	29,037
2043	0	221	3,958	0	4,179	1,591	126	8,737	2,190	12,646	8,467	29,505
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	2,642	48,740	0	51,383	38,071	5,631	163,513	25,928	233,143	181,761	
NPV	0	797	14,791	0	15,588	6,871	1,613	32,567	4,043	45,093	29,505	

Discount Rate: 8.89 %
 Benefit/Cost Ratio (Col(11) / Col(6)) : 2.89

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Business Water Heating**

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	139	0	902	0	1,042	1,420	0	0	1,420	(378)	(347)
2011	485	0	746	0	1,231	1,494	0	0	1,494	(263)	(569)
2012	943	0	819	0	1,762	1,681	0	0	1,681	81	(506)
2013	1,596	0	2,268	0	3,863	3,706	0	0	3,706	158	(394)
2014	2,391	0	979	0	3,370	2,108	0	0	2,108	1,262	431
2015	3,049	0	604	0	3,652	1,332	0	0	1,332	2,320	1,823
2016	3,526	0	367	0	3,892	830	0	0	830	3,063	3,511
2017	3,941	0	367	0	4,307	850	0	0	850	3,457	5,260
2018	4,331	0	367	0	4,698	872	0	0	872	3,826	7,038
2019	4,672	0	0	0	4,672	0	0	0	0	4,672	9,032
2020	4,689	0	0	0	4,689	0	0	0	0	4,689	10,870
2021	4,822	0	0	0	4,822	0	0	0	0	4,822	12,606
2022	5,018	0	0	0	5,018	0	0	0	0	5,018	14,265
2023	5,208	0	0	0	5,208	0	0	0	0	5,208	15,846
2024	5,493	0	0	0	5,493	0	0	0	0	5,493	17,378
2025	5,757	0	384	0	6,140	1,130	0	0	1,130	5,010	18,661
2026	6,035	0	1,265	0	7,299	3,112	0	0	3,112	4,187	19,646
2027	6,418	0	819	0	7,237	2,434	0	0	2,434	4,803	20,683
2028	6,727	0	897	0	7,624	2,733	0	0	2,733	4,891	21,653
2029	7,089	0	2,349	0	9,438	5,752	0	0	5,752	3,686	22,325
2030	7,499	0	604	0	8,103	1,930	0	0	1,930	6,173	23,357
2031	7,904	0	367	0	8,271	1,201	0	0	1,201	7,069	24,444
2032	8,437	0	367	0	8,804	1,232	0	0	1,232	7,572	25,512
2033	9,287	0	367	0	9,654	1,262	0	0	1,262	8,391	26,600
2034	9,469	0	0	0	9,469	0	0	0	0	9,469	27,727
2035	9,938	0	0	0	9,938	0	0	0	0	9,938	28,813
2036	10,747	0	0	0	10,747	0	0	0	0	10,747	29,892
2037	11,375	0	0	0	11,375	0	0	0	0	11,375	30,940
2038	11,940	0	0	0	11,940	0	0	0	0	11,940	31,951
2039	12,559	0	0	0	12,559	0	0	0	0	12,559	32,928
2040	13,219	0	384	0	13,603	1,637	0	0	1,637	11,966	33,782
2041	14,002	0	746	0	14,748	3,134	0	0	3,134	11,614	34,544
2042	14,838	0	1,337	0	16,176	4,934	0	0	4,934	11,242	35,221
2043	15,731	0	897	0	16,628	3,958	0	0	3,958	12,670	35,922
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
NOM	239,271	0	18,199	0	257,470	48,740	0	0	48,740	208,730	
NPV	43,806	0	6,907	0	50,713	14,791	0	0	14,791	35,922	

In Service of Gen Unit:

2019

Discount Rate :

8.89 %

Benefit/Cost Ratio (Col(6) / Col(10))

3.43

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Business Water Heating**

PSC FORM CE 2.5
PAGE 1 OF 1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	72	902	119	0	1,093	112	0	0	112	(981)	(901)	
2011	0	84	746	415	0	1,245	345	26	0	372	(872)	(1,637)	
2012	0	94	819	806	0	1,719	612	56	0	669	(1,050)	(2,450)	
2013	0	186	2,268	1,366	0	3,820	1,098	93	0	1,299	(2,520)	(4,243)	
2014	0	118	979	2,047	0	3,143	1,662	157	0	1,711	(1,153)	(4,997)	
2015	0	75	604	2,608	0	3,287	2,131	195	0	2,244	(736)	(5,439)	
2016	0	46	367	3,012	0	3,426	2,622	216	0	2,733	(315)	(5,612)	
2017	0	48	367	3,366	0	3,781	3,019	227	0	3,052	(216)	(5,721)	
2018	0	49	367	3,697	0	4,112	3,458	238	0	3,499	(47)	(5,743)	
2019	0	0	0	3,981	0	3,981	5,499	248	0	3,479	2,113	(4,841)	
2020	0	0	0	3,993	0	3,993	5,597	241	0	3,449	2,195	(3,981)	
2021	0	0	0	4,101	0	4,101	5,707	234	0	3,745	2,215	(3,183)	
2022	0	0	0	4,263	0	4,263	5,865	228	0	4,108	2,247	(2,440)	
2023	0	0	0	4,421	0	4,421	5,991	221	0	4,292	2,233	(1,762)	
2024	0	0	0	4,659	0	4,659	6,186	215	0	4,556	2,231	(1,140)	
2025	0	63	384	4,875	0	5,322	6,332	208	0	5,355	1,753	(691)	
2026	0	163	1,265	5,106	0	6,534	6,428	202	0	6,550	655	(537)	
2027	0	136	819	5,425	0	6,381	6,571	195	0	6,697	994	(323)	
2028	0	153	897	5,683	0	6,732	6,711	189	0	6,749	830	(158)	
2029	0	291	2,349	5,984	0	8,624	6,869	183	0	7,347	(835)	(310)	
2030	0	108	604	6,325	0	7,037	7,023	177	0	7,200	954	(151)	
2031	0	67	367	6,662	0	7,096	7,193	170	0	7,313	1,128	23	
2032	0	69	367	7,106	0	7,542	7,352	165	0	7,507	905	150	
2033	0	71	367	7,815	0	8,253	7,555	159	0	7,714	444	208	
2034	0	0	0	7,968	0	7,968	7,733	154	0	7,887	975	324	
2035	0	0	0	8,355	0	8,355	8,050	150	0	8,200	987	432	
2036	0	0	0	9,028	0	9,028	8,293	146	0	8,439	497	497	
2037	0	0	0	9,552	0	9,552	8,552	143	0	8,748	474	540	
2038	0	0	0	10,021	0	10,021	8,806	140	0	8,946	360	571	
2039	0	0	0	10,536	0	10,536	9,012	137	0	9,156	159	583	
2040	0	92	384	11,084	0	11,559	9,335	134	0	9,479	(425)	553	
2041	0	175	746	11,734	0	12,656	9,625	132	0	9,757	(1,110)	480	
2042	0	260	1,337	12,429	0	14,026	9,910	129	0	10,039	(2,005)	359	
2043	0	221	897	13,171	0	14,289	10,329	126	0	10,455	(1,643)	268	
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
NCM	0	2,642	18,199	201,716	0	222,557	201,584	5,631	0	25,928	233,143	10,586	
NPV	0	797	6,907	37,121	0	44,825	39,438	1,613	0	4,043	45,093	268	

Discount Rate 8.89 %
Benefit/Cost Ratio (Col(12) / Col(7)) : 1.01

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: **Business On Call**

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	FIXED	PW FIXED	COST BASIS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	FOR
													PROPERTY INSURANCE
													\$(000)
2019	40,790	1,267	0	2,847	1,878	687	243	1,591	3	8,516	8,516	8,516	39,781
2020	39,196	1,218	0	2,735	1,290	659	249	1,591	521	8,263	7,588	16,104	40,775
2021	37,084	1,152	0	2,588	1,279	630	255	1,591	440	7,935	6,692	22,797	41,794
2022	35,053	1,089	0	2,446	1,264	601	261	1,591	366	7,619	5,901	28,698	42,839
2023	33,096	1,028	0	2,310	1,248	573	268	1,591	296	7,313	5,203	33,901	43,910
2024	31,209	969	0	2,178	1,229	544	275	1,591	232	7,018	4,585	38,486	45,008
2025	29,385	913	0	2,051	1,208	516	281	1,591	173	6,733	4,040	42,526	46,133
2026	27,621	858	0	1,928	1,186	487	288	1,591	118	6,456	3,557	46,083	47,287
2027	25,912	805	0	1,808	1,120	458	296	1,591	109	6,187	3,131	49,214	48,469
2028	24,211	752	0	1,690	1,045	430	303	1,591	109	5,920	2,751	51,966	49,681
2029	22,511	699	0	1,571	971	401	311	1,591	109	5,653	2,413	54,378	50,923
2030	20,810	646	0	1,452	896	372	318	1,591	109	5,386	2,111	56,490	52,196
2031	19,110	594	0	1,334	821	344	326	1,591	109	5,119	1,843	58,333	53,500
2032	17,409	541	0	1,215	747	315	335	1,591	109	4,853	1,604	59,937	54,838
2033	15,709	488	0	1,096	672	286	343	1,591	109	4,587	1,393	61,330	56,209
2034	14,008	435	0	978	598	258	351	1,591	109	4,320	1,205	62,534	57,614
2035	12,308	382	0	859	523	229	360	1,591	109	4,055	1,038	63,573	59,055
2036	10,607	330	0	740	449	200	369	1,591	109	3,789	891	64,464	60,531
2037	8,907	277	0	622	374	172	378	1,591	109	3,523	761	65,225	62,044
2038	7,206	224	0	503	300	143	388	1,591	109	3,258	646	65,871	63,595
2039	5,506	171	0	384	225	115	398	1,591	(224)	2,993	545	66,416	65,185
2040	4,138	129	0	289	150	86	408	1,591	(557)	2,777	465	66,881	66,815
2041	3,104	96	0	217	78.6	57	418	1,591	(557)	2,609	401	67,282	68,485
2042	2,069	64	0	144	740	29	428	1,591	(557)	2,441	344	67,626	70,197
2043	1,034	32	0	72	695	(0)	439	1,591	(557)	2,273	295	67,921	71,952

IN SERVICE COST (\$000)	39,781
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business On Call

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(000) (9)-(12)+(13)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	1,451	1,451	1,591	1,591	1,443	1,443	3	3,713	0	0	0	3	(1,006)
2020	7.22%	2,793	4,243	1,591	3,182	1,443	2,885	521	3,713	0	0	0	521	(486)
2021	6.68%	2,583	6,826	1,591	4,774	1,443	4,328	440	3,713	0	0	0	440	(46)
2022	6.18%	2,391	9,217	1,591	6,365	1,443	5,771	366	3,713	0	0	0	366	320
2023	5.71%	2,210	11,427	1,591	7,956	1,443	7,213	296	3,713	0	0	0	296	616
2024	5.29%	2,044	13,471	1,591	9,547	1,443	8,656	232	3,713	0	0	0	232	848
2025	4.89%	1,891	15,362	1,591	11,139	1,443	10,099	173	3,713	0	0	0	173	1,021
2026	4.52%	1,749	17,112	1,591	12,730	1,443	11,542	118	3,713	0	0	0	118	1,139
2027	4.46%	1,726	18,838	1,591	14,321	1,443	12,984	109	3,713	0	0	0	109	1,248
2028	4.46%	1,726	20,563	1,591	15,912	1,443	14,427	109	3,713	0	0	0	109	1,358
2029	4.46%	1,726	22,290	1,591	17,503	1,443	15,870	109	3,713	0	0	0	109	1,467
2030	4.46%	1,726	24,015	1,591	19,095	1,443	17,312	109	3,713	0	0	0	109	1,576
2031	4.46%	1,726	25,741	1,591	20,686	1,443	18,755	109	3,713	0	0	0	109	1,685
2032	4.46%	1,726	27,467	1,591	22,277	1,443	20,198	109	3,713	0	0	0	109	1,795
2033	4.46%	1,726	29,193	1,591	23,868	1,443	21,640	109	3,713	0	0	0	109	1,904
2034	4.46%	1,726	30,919	1,591	25,460	1,443	23,083	109	3,713	0	0	0	109	2,013
2035	4.46%	1,726	32,645	1,591	27,051	1,443	24,526	109	3,713	0	0	0	109	2,122
2036	4.46%	1,726	34,371	1,591	28,642	1,443	25,969	109	3,713	0	0	0	109	2,232
2037	4.46%	1,726	36,097	1,591	30,233	1,443	27,411	109	3,713	0	0	0	109	2,341
2038	4.46%	1,726	37,823	1,591	31,824	1,443	28,854	109	3,713	0	0	0	109	2,450
2039	2.23%	863	38,686	1,591	33,416	1,443	30,297	(224)	3,713	0	0	0	(224)	2,227
2040	0.00%	0	38,686	1,591	35,007	1,443	31,739	(557)	3,713	0	0	0	(557)	1,670
2041	0.00%	0	38,686	1,591	36,598	1,443	33,182	(557)	3,713	0	0	0	(557)	1,113
2042	0.00%	0	38,686	1,591	38,189	1,443	34,625	(557)	3,713	0	0	0	(557)	557
2043	0.00%	0	38,686	1,591	39,781	1,443	36,067	(557)	3,713	0	0	0	(557)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(1,009)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	3,713
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: **Business On Call**

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
				END OF YEAR NET					
	TAX DEPRECIATION	TAX DEPRECIATION	DEFERRED TAX	PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	1,451	3	38,189	1,591	(1,006)	40,790	39,196	39,993
2020	7.22%	2,793	521	36,598	3,182	(486)	39,196	37,084	38,140
2021	6.68%	2,583	440	35,007	4,774	(46)	37,084	35,053	36,068
2022	6.18%	2,391	366	33,416	6,365	320	35,053	33,096	34,074
2023	5.71%	2,210	296	31,824	7,956	616	33,096	31,209	32,152
2024	5.29%	2,044	232	30,233	9,547	848	31,209	29,385	30,297
2025	4.89%	1,891	173	28,642	11,139	1,021	29,385	27,621	28,503
2026	4.52%	1,749	118	27,051	12,730	1,139	27,621	25,912	26,766
2027	4.46%	1,726	109	25,460	14,321	1,248	25,912	24,211	25,061
2028	4.46%	1,726	109	23,868	15,912	1,358	24,211	22,511	23,361
2029	4.46%	1,726	109	22,277	17,503	1,467	22,511	20,810	21,660
2030	4.46%	1,726	109	20,686	19,095	1,576	20,810	19,110	19,960
2031	4.46%	1,726	109	19,095	20,686	1,685	19,110	17,409	18,259
2032	4.46%	1,726	109	17,503	22,277	1,795	17,409	15,709	16,559
2033	4.46%	1,726	109	15,912	23,868	1,904	15,709	14,008	14,859
2034	4.46%	1,726	109	14,321	25,460	2,013	14,008	12,308	13,158
2035	4.46%	1,726	109	12,730	27,051	2,122	12,308	10,607	11,458
2036	4.46%	1,726	109	11,139	28,642	2,232	10,607	8,907	9,757
2037	4.46%	1,726	109	9,547	30,233	2,341	8,907	7,206	8,057
2038	4.46%	1,726	109	7,956	31,824	2,450	7,206	5,506	6,356
2039	2.23%	863	(224)	6,365	33,416	2,227	5,506	4,138	4,822
2040	0.00%	0	(557)	4,774	35,007	1,670	4,138	3,104	3,621
2041	0.00%	0	(557)	3,182	36,598	1,113	3,104	2,069	2,586
2042	0.00%	0	(557)	1,591	38,189	557	2,069	1,034	1,552
2043	0.00%	0	(557)	(0)	39,781	0	1,034	0	517

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	33,920	33,920	33,920
EQUITY AFUDC	3,713		
DEBT AFUDC	2,147	2,147	
CPI			4,764
TOTAL	39,781	36,067	38,684

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business On Call

(1) YEAR	(2) INCREASED SUPPLY COSTS \$(000)	(3) UTILITY PROGRAM COSTS \$(000)	(4) PARTICIPANT PROGRAM COSTS \$(000)	(5) OTHER COSTS \$(000)	(6) TOTAL COSTS \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)	(8) AVOIDED T&D BENEFITS \$(000)	(9) PROGRAM FUEL SAVINGS \$(000)	(10) OTHER BENEFITS \$(000)	(11) TOTAL BENEFITS \$(000)	(12) NET BENEFITS \$(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	84	0	0	84	0	0	1	0	1	(84)	(77)
2011	0	249	0	0	249	0	179	1	0	180	(69)	(135)
2012	0	412	0	0	412	0	358	3	0	361	(51)	(175)
2013	0	572	0	0	572	0	551	2	0	553	(19)	(188)
2014	0	729	0	0	729	0	731	3	0	734	5	(184)
2015	0	837	0	0	837	0	912	5	0	917	80	(137)
2016	0	894	0	0	894	0	1,093	6	1	1,100	206	(23)
2017	0	953	0	0	953	0	1,276	8	1	1,284	331	144
2018	0	1,014	0	0	1,014	0	1,459	8	1	1,469	454	356
2019 *	0	973	0	0	973	10,230	1,629	15	(436)	11,438	10,465	4,822
2020	0	833	0	0	833	9,509	1,583	13	(638)	10,467	9,634	8,598
2021	0	699	0	0	699	9,126	1,537	14	(706)	9,971	9,272	11,936
2022	0	571	0	0	571	9,070	1,493	16	(816)	9,763	9,192	14,975
2023	0	450	0	0	450	9,233	1,450	13	(898)	9,797	9,348	17,813
2024	0	392	0	0	392	9,336	1,408	14	(1,023)	9,735	9,342	20,418
2025	0	402	0	0	402	9,319	1,367	13	(1,166)	9,533	9,131	22,757
2026	0	412	0	0	412	9,382	1,326	13	(1,258)	9,463	9,051	24,885
2027	0	422	0	0	422	9,458	1,286	14	(1,414)	9,343	8,921	26,812
2028	0	433	0	0	433	9,413	1,245	14	(1,539)	9,134	8,701	28,538
2029	0	444	0	0	444	9,660	1,205	13	(1,729)	9,149	8,706	30,124
2030	0	455	0	0	455	9,658	1,165	14	(1,912)	8,925	8,470	31,541
2031	0	466	0	0	466	9,586	1,126	14	(2,071)	8,654	8,188	32,799
2032	0	478	0	0	478	9,886	1,088	14	(2,258)	8,730	8,252	33,964
2033	0	490	0	0	490	9,862	1,053	14	(2,624)	8,305	7,815	34,977
2034	0	502	0	0	502	10,321	1,020	14	(2,893)	8,462	7,960	35,924
2035	0	515	0	0	515	10,476	990	15	(3,149)	8,332	7,818	36,778
2036	0	528	0	0	528	10,379	962	16	(3,434)	7,923	7,395	37,521
2037	0	541	0	0	541	10,600	937	16	(3,717)	7,837	7,296	38,193
2038	0	554	0	0	554	10,300	915	17	(4,026)	7,205	6,651	38,757
2039	0	568	0	0	568	10,121	896	17	(4,375)	6,658	6,090	39,230
2040	0	582	0	0	582	10,559	878	17	(4,725)	6,730	6,148	39,669
2041	0	597	0	0	597	10,456	862	18	(5,088)	6,248	5,652	40,040
2042	0	612	0	0	612	10,273	846	19	(5,088)	6,050	5,438	40,367
2043	0	627	0	0	627	10,304	830	20	(5,087)	6,067	5,440	40,668
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	19,291	0	0	19,291	246,517	35,657	411	(62,066)	220,520	201,228	
NPV	0	6,066	0	0	6,066	44,489	9,806	87	(7,649)	46,734	40,668	

Discount Rate: 8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) : 7.70

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Business On Call**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILLS \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O&M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	64	0	64	0	0	0	0	64	59
2011	1	0	192	0	193	0	0	0	0	193	222
2012	1	0	320	0	321	0	0	0	0	321	470
2013	2	0	448	0	450	0	0	0	0	450	790
2014	3	0	576	0	578	0	0	0	0	578	1,168
2015	3	0	704	0	707	0	0	0	0	707	1,593
2016	4	0	832	0	836	0	0	0	0	836	2,053
2017	5	0	960	0	965	0	0	0	0	965	2,541
2018	5	0	1,088	0	1,093	0	0	0	0	1,093	3,049
2019	5	0	1,152	0	1,157	0	0	0	0	1,157	3,543
2020	5	0	1,152	0	1,157	0	0	0	0	1,157	3,997
2021	6	0	1,152	0	1,157	0	0	0	0	1,157	4,414
2022	6	0	1,152	0	1,158	0	0	0	0	1,158	4,796
2023	6	0	1,152	0	1,158	0	0	0	0	1,158	5,148
2024	6	0	1,152	0	1,158	0	0	0	0	1,158	5,471
2025	6	0	1,152	0	1,158	0	0	0	0	1,158	5,767
2026	7	0	1,152	0	1,159	0	0	0	0	1,159	6,040
2027	7	0	1,152	0	1,159	0	0	0	0	1,159	6,290
2028	7	0	1,152	0	1,159	0	0	0	0	1,159	6,520
2029	8	0	1,152	0	1,160	0	0	0	0	1,160	6,731
2030	8	0	1,152	0	1,160	0	0	0	0	1,160	6,925
2031	8	0	1,152	0	1,160	0	0	0	0	1,160	7,104
2032	9	0	1,152	0	1,161	0	0	0	0	1,161	7,268
2033	10	0	1,152	0	1,162	0	0	0	0	1,162	7,418
2034	10	0	1,152	0	1,162	0	0	0	0	1,162	7,556
2035	10	0	1,152	0	1,162	0	0	0	0	1,162	7,683
2036	11	0	1,152	0	1,163	0	0	0	0	1,163	7,800
2037	12	0	1,152	0	1,164	0	0	0	0	1,164	7,907
2038	12	0	1,152	0	1,164	0	0	0	0	1,164	8,006
2039	13	0	1,152	0	1,165	0	0	0	0	1,165	8,097
2040	14	0	1,152	0	1,166	0	0	0	0	1,166	8,180
2041	15	0	1,152	0	1,166	0	0	0	0	1,166	8,256
2042	15	0	1,152	0	1,167	0	0	0	0	1,167	8,327
2043	16	0	1,152	0	1,168	0	0	0	0	1,168	8,391
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
NOM	256	0	33,981	0	34,236	0	0	0	0	34,236	
NPV	49	0	8,343	0	8,391	0	0	0	0	8,391	

In Service of Gen Units

2019

Discount Rate :

8.89 %

Benefit/Cost Ratio (Col(6) / Col(10))

Infinite

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: **Commercial/Industrial Demand Reduction**

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	FIXED	PW FIXED	COST BASIS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	CHARGES	CHARGES	CHARGES	FOR
										\$(000)	\$(000)	\$(000)	PROPERTY INSURANCE
													\$(000)
2019	170,978	5,311	0	11,932	7,871	2,881	1,017	6,670	13	35,696	35,696	35,696	166,747
2020	164,295	5,104	0	11,466	5,409	2,761	1,043	6,670	2,183	34,635	31,808	67,504	170,915
2021	155,443	4,829	0	10,848	5,360	2,641	1,069	6,670	1,844	33,260	28,052	95,557	175,188
2022	146,929	4,564	0	10,254	5,298	2,521	1,095	6,670	1,533	31,935	24,737	120,293	179,568
2023	138,727	4,309	0	9,681	5,230	2,401	1,123	6,670	1,241	30,655	21,808	142,101	184,057
2024	130,816	4,064	0	9,129	5,151	2,281	1,151	6,670	973	29,419	19,220	161,321	188,659
2025	123,173	3,826	0	8,596	5,065	2,161	1,180	6,670	725	28,222	16,933	178,254	193,375
2026	115,778	3,597	0	8,080	4,969	2,041	1,209	6,670	496	27,062	14,912	193,165	198,210
2027	108,613	3,374	0	7,580	4,693	1,921	1,239	6,670	458	25,935	13,124	206,290	203,165
2028	101,485	3,153	0	7,082	4,381	1,801	1,270	6,670	458	24,815	11,533	217,822	208,244
2029	94,357	2,931	0	6,585	4,068	1,681	1,302	6,670	458	23,695	10,114	227,936	213,450
2030	87,229	2,710	0	6,088	3,756	1,561	1,335	6,670	458	22,576	8,850	236,785	218,786
2031	80,102	2,488	0	5,590	3,443	1,441	1,368	6,670	458	21,458	7,725	244,510	224,256
2032	72,974	2,267	0	5,093	3,132	1,321	1,402	6,670	458	20,341	6,725	251,235	229,862
2033	65,846	2,045	0	4,595	2,819	1,201	1,437	6,670	458	19,225	5,837	257,073	235,609
2034	58,718	1,824	0	4,098	2,507	1,081	1,473	6,670	458	18,110	5,050	262,123	241,499
2035	51,590	1,603	0	3,600	2,194	960	1,510	6,670	458	16,995	4,352	266,475	247,537
2036	44,462	1,381	0	3,103	1,882	840	1,548	6,670	458	15,882	3,735	270,210	253,725
2037	37,335	1,160	0	2,606	1,569	720	1,586	6,670	458	14,769	3,190	273,400	260,068
2038	30,207	938	0	2,108	1,257	600	1,626	6,670	458	13,657	2,709	276,109	266,570
2039	23,079	717	0	1,611	2,340	480	1,667	6,670	(937)	12,547	2,286	278,395	273,234
2040	17,347	539	0	1,211	3,484	360	1,708	6,670	(2,333)	11,639	1,947	280,342	280,065
2041	13,009	404	0	908	3,294	240	1,751	6,670	(2,333)	10,934	1,680	282,022	287,067
2042	8,672	269	0	605	3,104	120	1,795	6,670	(2,333)	10,230	1,444	283,466	294,243
2043	4,335	135	0	303	2,914	0	1,840	6,670	(2,333)	9,528	1,235	284,701	301,599

IN SERVICE COST (\$000)	166,747
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Commercial/Industrial Demand Reduction

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	6,081	6,081	6,670	6,670	6,047	6,047	13	15,564	0	0	0	13	(4,219)
2020	7.22%	11,706	17,786	6,670	13,340	6,047	12,095	2,183	15,564	0	0	0	2,183	(2,036)
2021	6.68%	10,827	28,613	6,670	20,010	6,047	18,142	1,844	15,564	0	0	0	1,844	(192)
2022	6.18%	10,021	38,634	6,670	26,679	6,047	24,189	1,533	15,564	0	0	0	1,533	1,341
2023	5.71%	9,264	47,898	6,670	33,349	6,047	30,237	1,241	15,564	0	0	0	1,241	2,582
2024	5.29%	8,570	56,468	6,670	40,019	6,047	36,284	973	15,564	0	0	0	973	3,555
2025	4.89%	7,926	64,394	6,670	46,689	6,047	42,331	725	15,564	0	0	0	725	4,279
2026	4.52%	7,333	71,726	6,670	53,359	6,047	48,378	496	15,564	0	0	0	496	4,775
2027	4.46%	7,235	78,962	6,670	60,029	6,047	54,426	458	15,564	0	0	0	458	5,233
2028	4.46%	7,234	86,195	6,670	66,699	6,047	60,473	458	15,564	0	0	0	458	5,691
2029	4.46%	7,235	93,430	6,670	73,369	6,047	66,520	458	15,564	0	0	0	458	6,149
2030	4.46%	7,234	100,664	6,670	80,038	6,047	72,568	458	15,564	0	0	0	458	6,607
2031	4.46%	7,235	107,899	6,670	86,708	6,047	78,615	458	15,564	0	0	0	458	7,065
2032	4.46%	7,234	115,133	6,670	93,378	6,047	84,662	458	15,564	0	0	0	458	7,523
2033	4.46%	7,235	122,368	6,670	100,048	6,047	90,710	458	15,564	0	0	0	458	7,981
2034	4.46%	7,234	129,602	6,670	106,718	6,047	96,757	458	15,564	0	0	0	458	8,438
2035	4.46%	7,235	136,837	6,670	113,388	6,047	102,804	458	15,564	0	0	0	458	8,897
2036	4.46%	7,234	144,071	6,670	120,058	6,047	108,852	458	15,564	0	0	0	458	9,354
2037	4.46%	7,235	151,306	6,670	126,728	6,047	114,899	458	15,564	0	0	0	458	9,813
2038	4.46%	7,234	158,539	6,670	133,397	6,047	120,946	458	15,564	0	0	0	458	10,270
2039	2.23%	3,618	162,157	6,670	140,067	6,047	126,993	(937)	15,564	0	0	0	(937)	9,333
2040	0.00%	0	162,157	6,670	146,737	6,047	133,041	(2,333)	15,564	0	0	0	(2,333)	7,000
2041	0.00%	0	162,157	6,670	153,407	6,047	139,088	(2,333)	15,564	0	0	0	(2,333)	4,667
2042	0.00%	0	162,157	6,670	160,077	6,047	145,135	(2,333)	15,564	0	0	0	(2,333)	2,333
2043	0.00%	0	162,157	6,670	166,747	6,047	151,183	(2,333)	15,564	0	0	0	(2,333)	2

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(4,231)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	15,564
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Commercial/Industrial Demand Reduction

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END OF YEAR									
NET									
	TAX DEPRECIATION	TAX DEPRECIATION	DEFERRED TAX	PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	6,081	13	160,077	6,670	(4,219)	170,978	164,295	167,637
2020	7.22%	11,706	2,183	153,407	13,340	(2,036)	164,295	155,443	159,869
2021	6.68%	10,827	1,844	146,737	20,010	(192)	155,443	146,929	151,186
2022	6.18%	10,021	1,533	140,067	26,679	1,341	146,929	138,727	142,828
2023	5.71%	9,264	1,241	133,397	33,349	2,582	138,727	130,816	134,771
2024	5.29%	8,570	973	126,728	40,019	3,555	130,816	123,173	126,994
2025	4.89%	7,926	725	120,058	46,689	4,279	123,173	115,778	119,476
2026	4.52%	7,333	496	113,388	53,359	4,775	115,778	108,613	112,196
2027	4.46%	7,235	458	106,718	60,029	5,233	108,613	101,485	105,049
2028	4.46%	7,234	458	100,048	66,699	5,691	101,485	94,357	97,921
2029	4.46%	7,235	458	93,378	73,369	6,149	94,357	87,229	90,793
2030	4.46%	7,234	458	86,708	80,038	6,607	87,229	80,102	83,665
2031	4.46%	7,235	458	80,038	86,708	7,065	80,102	72,974	76,538
2032	4.46%	7,234	458	73,369	93,378	7,523	72,974	65,846	69,410
2033	4.46%	7,235	458	66,699	100,048	7,981	65,846	58,718	62,282
2034	4.46%	7,234	458	60,029	106,718	8,438	58,718	51,590	55,154
2035	4.46%	7,235	458	53,359	113,388	8,897	51,590	44,462	48,026
2036	4.46%	7,234	458	46,689	120,058	9,354	44,462	37,335	40,899
2037	4.46%	7,235	458	40,019	126,728	9,813	37,335	30,207	33,771
2038	4.46%	7,234	458	33,349	133,397	10,270	30,207	23,079	26,643
2039	2.23%	3,618	(937)	26,679	140,067	9,333	23,079	17,347	20,213
2040	0.00%	0	(2,333)	20,010	146,737	7,000	17,347	13,009	15,178
2041	0.00%	0	(2,333)	13,340	153,407	4,667	13,009	8,672	10,841
2042	0.00%	0	(2,333)	6,670	160,077	2,335	8,672	4,335	6,504
2043	0.00%	0	(2,333)	0	166,747	2	4,335	-2	2,167

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	142,182	142,182	142,182
EQUITY AFUDC	15,564		
DEBT AFUDC	9,001	9,001	
CPI			19,970
TOTAL	166,747	151,183	162,152

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Commercial/Industrial Demand Reduction**

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	5	0	366	0	371	0	0	0	0	371	341
2011	16	0	1,098	0	1,114	0	0	0	0	1,114	1,281
2012	28	0	1,830	0	1,858	0	0	0	0	1,858	2,720
2013	41	0	2,562	0	2,604	0	0	0	0	2,604	4,572
2014	57	0	3,292	0	3,349	0	0	0	0	3,349	6,760
2015	73	0	4,020	0	4,092	0	0	0	0	4,092	9,215
2016	90	0	4,747	0	4,837	0	0	0	0	4,837	11,881
2017	107	0	5,475	0	5,582	0	0	0	0	5,582	14,706
2018	126	0	6,203	0	6,329	0	0	0	0	6,329	17,647
2019	141	0	6,567	0	6,708	0	0	0	0	6,708	20,510
2020	143	0	6,567	0	6,709	0	0	0	0	6,709	23,140
2021	148	0	6,567	0	6,714	0	0	0	0	6,714	25,557
2022	154	0	6,567	0	6,720	0	0	0	0	6,720	27,779
2023	160	0	6,567	0	6,726	0	0	0	0	6,726	29,821
2024	169	0	6,567	0	6,735	0	0	0	0	6,735	31,699
2025	178	0	6,567	0	6,744	0	0	0	0	6,744	33,427
2026	186	0	6,567	0	6,753	0	0	0	0	6,753	35,015
2027	198	0	6,567	0	6,765	0	0	0	0	6,765	36,476
2028	208	0	6,567	0	6,774	0	0	0	0	6,774	37,820
2029	219	0	6,567	0	6,786	0	0	0	0	6,786	39,056
2030	232	0	6,567	0	6,798	0	0	0	0	6,798	40,193
2031	244	0	6,567	0	6,811	0	0	0	0	6,811	41,240
2032	261	0	6,567	0	6,827	0	0	0	0	6,827	42,203
2033	287	0	6,567	0	6,854	0	0	0	0	6,854	43,091
2034	293	0	6,567	0	6,859	0	0	0	0	6,859	43,908
2035	307	0	6,567	0	6,874	0	0	0	0	6,874	44,659
2036	332	0	6,567	0	6,899	0	0	0	0	6,899	45,352
2037	352	0	6,567	0	6,918	0	0	0	0	6,918	45,989
2038	369	0	6,567	0	6,936	0	0	0	0	6,936	46,577
2039	388	0	6,567	0	6,955	0	0	0	0	6,955	47,117
2040	409	0	6,567	0	6,975	0	0	0	0	6,975	47,616
2041	433	0	6,567	0	7,000	0	0	0	0	7,000	48,075
2042	459	0	6,567	0	7,025	0	0	0	0	7,025	48,498
2043	486	0	6,567	0	7,053	0	0	0	0	7,053	48,888
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
NOM	7,299	0	193,758	0	201,056	0	0	0	0	201,056	
NPV	1,299	0	47,588	0	48,888	0	0	0	0	48,888	

In Service of Gen Unit:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019

8.89 %

Infinite

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Commercial/Industrial Demand Reduction

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	19	366	4	0	389	10	0	0	0	10	(379)	(348)
2011	0	38	1,098	13	0	1,150	18	0	0	0	19	(1,131)	(1,302)
2012	0	59	1,830	23	0	1,912	41	0	0	1	41	(1,871)	(2,751)
2013	0	81	2,562	34	0	2,677	40	0	0	4	44	(2,634)	(4,625)
2014	0	103	3,292	47	0	3,443	55	0	0	5	60	(3,383)	(6,835)
2015	0	127	4,020	60	0	4,207	85	0	0	7	93	(4,114)	(9,303)
2016	0	152	4,747	74	0	4,974	105	0	0	9	115	(4,859)	(11,981)
2017	0	178	5,475	89	0	5,742	132	0	0	12	144	(5,598)	(14,813)
2018	0	205	6,203	105	0	6,513	152	0	0	15	166	(6,346)	(17,763)
2019	0	210	6,567	117	0	6,894	43,112	0	0	(1,816)	41,296	34,402	(3,080)
2020	0	215	6,567	119	0	6,901	40,074	0	0	(2,660)	37,414	30,513	8,881
2021	0	221	6,567	123	0	6,910	38,484	0	0	(2,944)	35,540	28,630	19,188
2022	0	226	6,567	128	0	6,921	38,273	0	0	(3,404)	34,869	27,948	28,428
2023	0	232	6,567	133	0	6,931	38,921	0	0	(3,748)	35,173	28,242	37,003
2024	0	238	6,567	140	0	6,944	39,367	0	0	(4,270)	35,097	28,153	44,853
2025	0	244	6,567	147	0	6,958	39,293	0	0	(4,866)	34,427	27,469	51,888
2026	0	250	6,567	155	0	6,971	39,561	0	0	(5,254)	34,308	27,337	58,317
2027	0	256	6,567	165	0	6,987	39,884	0	0	(5,905)	33,979	26,992	64,147
2028	0	262	6,567	173	0	7,001	39,705	0	0	(6,426)	33,279	26,277	69,359
2029	0	269	6,567	182	0	7,017	40,730	0	0	(7,221)	33,509	26,492	74,186
2030	0	276	6,567	192	0	7,035	40,729	0	0	(7,984)	32,745	25,711	78,487
2031	0	283	6,567	203	0	7,052	40,433	0	0	(8,649)	31,784	24,732	82,287
2032	0	290	6,567	216	0	7,073	41,691	0	0	(9,432)	32,258	25,186	85,841
2033	0	297	6,567	238	0	7,102	41,600	0	0	(10,963)	30,637	23,535	88,891
2034	0	304	6,567	243	0	7,114	43,527	0	0	(12,089)	31,438	24,324	91,786
2035	0	312	6,567	255	0	7,134	44,191	0	0	(13,158)	31,033	23,899	94,399
2036	0	320	6,567	276	0	7,162	43,794	0	0	(14,351)	29,444	22,282	96,635
2037	0	328	6,567	292	0	7,186	44,733	0	0	(15,531)	29,202	22,016	98,565
2038	0	336	6,567	306	0	7,209	43,483	0	0	(16,825)	26,658	19,449	100,312
2039	0	344	6,567	322	0	7,233	42,744	0	0	(18,284)	24,459	17,226	101,651
2040	0	353	6,567	339	0	7,259	44,590	0	0	(19,752)	24,838	17,579	102,906
2041	0	362	6,567	359	0	7,288	44,171	0	0	(21,269)	22,902	15,614	103,930
2042	0	371	6,567	381	0	7,318	43,417	0	0	(21,263)	22,154	14,836	104,824
2043	0	380	6,567	404	0	7,350	43,567	0	0	(21,257)	22,310	14,960	105,651
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
NOM.	0	8,140	193,758	6,058	0	207,956	1,040,714	0	0	(259,271)	781,443	573,487	
NPV	0	1,757	47,588	1,079	0	50,424	188,000	0	0	(31,924)	156,076	105,651	

Discount Rate: 8.89 %
 Benefit/Cost Ratio (Col(12) / Col(7)) : 3.10

Staff's 1st Data Request #1

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Low Income Weatherization

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
											TOTAL	PRESENT	REPLACEMENT
YEAR	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	3,858	120	0	269	178	65	23	150	0	805	805	805	3,762
2020	3,707	115	0	259	122	62	24	150	49	781	718	1,523	3,856
2021	3,507	109	0	245	121	60	24	150	42	750	633	2,156	3,953
2022	3,315	103	0	231	120	57	25	150	35	721	558	2,714	4,051
2023	3,130	97	0	218	118	54	25	150	28	692	492	3,206	4,153
2024	2,951	92	0	206	116	51	26	150	22	664	434	3,640	4,256
2025	2,779	86	0	194	114	49	27	150	16	637	382	4,022	4,363
2026	2,612	81	0	182	112	46	27	150	11	611	336	4,358	4,472
2027	2,450	76	0	171	106	43	28	150	10	585	296	4,654	4,584
2028	2,290	71	0	160	99	41	29	150	10	560	260	4,914	4,698
2029	2,129	66	0	149	92	38	29	150	10	535	228	5,143	4,816
2030	1,968	61	0	137	85	35	30	150	10	509	200	5,342	4,936
2031	1,807	56	0	126	78	33	31	150	10	484	174	5,517	5,060
2032	1,646	51	0	115	71	30	32	150	10	459	152	5,668	5,186
2033	1,486	46	0	104	64	27	32	150	10	434	132	5,800	5,316
2034	1,325	41	0	92	57	24	33	150	10	409	114	5,914	5,449
2035	1,164	36	0	81	49	22	34	150	10	383	98	6,012	5,585
2036	1,003	31	0	70	42	19	35	150	10	358	84	6,096	5,724
2037	842	26	0	59	35	16	36	150	10	333	72	6,168	5,868
2038	682	21	0	48	28	14	37	150	10	308	61	6,230	6,014
2039	521	16	0	36	53	11	38	150	(21)	283	52	6,281	6,165
2040	391	12	0	27	79	8	39	150	(53)	263	44	6,325	6,319
2041	294	9	0	20	74	5	40	150	(53)	247	38	6,363	6,477
2042	196	6	0	14	70	3	40	150	(53)	231	33	6,395	6,639
2043	98	3	0	7	66	(0)	42	150	(53)	215	28	6,423	6,805

IN SERVICE COST (\$000)	3,762
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.03 %
P/S	0%	0.00 %
C/S	56%	12.50 %

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Weatherization

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(000) (9)-(12)+(13)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	137	137	150	150	136	136	0	351	0	0	0	0	(95)
2020	7.22%	264	401	150	301	136	273	49	351	0	0	0	49	(46)
2021	6.68%	244	646	150	451	136	409	42	351	0	0	0	42	(4)
2022	6.18%	226	872	150	602	136	546	35	351	0	0	0	35	30
2023	5.71%	209	1,081	150	752	136	682	28	351	0	0	0	28	58
2024	5.29%	193	1,274	150	903	136	819	22	351	0	0	0	22	80
2025	4.89%	179	1,453	150	1,053	136	955	16	351	0	0	0	16	97
2026	4.52%	165	1,618	150	1,204	136	1,092	11	351	0	0	0	11	108
2027	4.46%	163	1,782	150	1,354	136	1,228	10	351	0	0	0	10	118
2028	4.46%	163	1,945	150	1,505	136	1,364	10	351	0	0	0	10	128
2029	4.46%	163	2,108	150	1,655	136	1,501	10	351	0	0	0	10	139
2030	4.46%	163	2,271	150	1,806	136	1,637	10	351	0	0	0	10	149
2031	4.46%	163	2,434	150	1,956	136	1,774	10	351	0	0	0	10	159
2032	4.46%	163	2,598	150	2,107	136	1,910	10	351	0	0	0	10	170
2033	4.46%	163	2,761	150	2,257	136	2,047	10	351	0	0	0	10	180
2034	4.46%	163	2,924	150	2,408	136	2,183	10	351	0	0	0	10	190
2035	4.46%	163	3,087	150	2,558	136	2,319	10	351	0	0	0	10	201
2036	4.46%	163	3,250	150	2,709	136	2,456	10	351	0	0	0	10	211
2037	4.46%	163	3,414	150	2,859	136	2,592	10	351	0	0	0	10	221
2038	4.46%	163	3,577	150	3,010	136	2,729	10	351	0	0	0	10	232
2039	2.23%	82	3,659	150	3,160	136	2,865	(21)	351	0	0	0	(21)	211
2040	0.00%	0	3,659	150	3,311	136	3,002	(53)	351	0	0	0	(53)	158
2041	0.00%	0	3,659	150	3,461	136	3,138	(53)	351	0	0	0	(53)	105
2042	0.00%	0	3,659	150	3,612	136	3,275	(53)	351	0	0	0	(53)	53
2043	0.00%	0	3,659	150	3,762	136	3,411	(53)	351	0	0	0	(53)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(95)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	351
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Low Income Weatherization

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END OF YEAR NET									
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	137	0	3,612	150	(95)	3,858	3,707	3,782
2020	7.22%	264	49	3,461	301	(46)	3,707	3,507	3,607
2021	6.68%	244	42	3,311	451	(4)	3,507	3,315	3,411
2022	6.18%	226	35	3,160	602	30	3,315	3,130	3,222
2023	5.71%	209	28	3,010	752	58	3,130	2,951	3,041
2024	5.29%	193	22	2,859	903	80	2,951	2,779	2,865
2025	4.89%	179	16	2,709	1,053	97	2,779	2,612	2,696
2026	4.52%	165	11	2,558	1,204	108	2,612	2,450	2,531
2027	4.46%	163	10	2,408	1,354	118	2,450	2,290	2,370
2028	4.46%	163	10	2,257	1,505	128	2,290	2,129	2,209
2029	4.46%	163	10	2,107	1,655	139	2,129	1,968	2,048
2030	4.46%	163	10	1,956	1,806	149	1,968	1,807	1,888
2031	4.46%	163	10	1,806	1,956	159	1,807	1,646	1,727
2032	4.46%	163	10	1,655	2,107	170	1,646	1,486	1,566
2033	4.46%	163	10	1,505	2,257	180	1,486	1,325	1,405
2034	4.46%	163	10	1,354	2,408	190	1,325	1,164	1,244
2035	4.46%	163	10	1,204	2,558	201	1,164	1,003	1,084
2036	4.46%	163	10	1,053	2,709	211	1,003	842	923
2037	4.46%	163	10	903	2,859	221	842	682	762
2038	4.46%	163	10	752	3,010	232	682	521	601
2039	2.23%	82	(21)	602	3,160	211	521	391	456
2040	0.00%	0	(53)	451	3,311	158	391	294	342
2041	0.00%	0	(53)	301	3,461	105	294	196	245
2042	0.00%	0	(53)	150	3,612	53	196	98	147
2043	0.00%	0	(53)	(0)	3,762	0	98	0	49

* Column not specified in workbook

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(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805.5
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	3,208	3,208	3,208
EQUITY AFUDC	351		
DEBT AFUDC	203	203	
CPI			451
TOTAL	3,762	3,411	3,658

* Column not specified in workbook

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TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Weatherization

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	120	304	0	425	0	0	38	0	38	(387)	(355)
2011	0	123	312	0	435	0	17	106	0	124	(311)	(618)
2012	0	126	320	0	446	0	35	175	1	211	(235)	(800)
2013	0	129	328	0	457	0	54	240	20	314	(144)	(902)
2014	0	170	404	0	574	0	71	316	29	416	(159)	(1,006)
2015	0	223	501	0	724	0	89	429	39	556	(168)	(1,107)
2016	0	229	514	0	742	0	106	619	52	778	35	(1,088)
2017	0	235	526	0	761	0	124	787	66	978	217	(978)
2018	0	282	614	0	897	0	142	950	82	1,174	277	(849)
2019	0	139	250	0	389	967	158	1,140	52	2,318	1,929	(26)
2020	0	253	567	0	819	899	154	1,187	42	2,283	1,463	548
2021	0	259	581	0	840	863	149	1,231	43	2,286	1,446	1,068
2022	0	312	678	0	990	858	145	1,274	46	2,323	1,333	1,509
2023	0	272	610	0	882	873	141	1,267	45	2,326	1,444	1,947
2024	0	218	517	0	735	883	137	1,317	48	2,385	1,650	2,407
2025	0	286	641	0	927	881	133	1,346	49	2,409	1,482	2,787
2026	0	344	749	0	1,093	887	129	1,349	49	2,414	1,321	3,098
2027	0	300	674	0	974	894	125	1,359	49	2,427	1,453	3,412
2028	0	308	691	0	998	890	121	1,381	53	2,445	1,447	3,698
2029	0	178	320	0	498	914	117	1,372	58	2,460	1,962	4,056
2030	0	380	826	0	1,206	913	113	1,399	58	2,484	1,278	4,270
2031	0	331	744	0	1,075	907	109	1,443	64	2,523	1,447	4,492
2032	0	340	762	0	1,102	935	105	1,418	68	2,526	1,424	4,693
2033	0	348	781	0	1,130	933	102	1,470	56	2,561	1,431	4,879
2034	0	341	773	0	1,115	976	99	1,442	56	2,572	1,457	5,052
2035	0	366	821	0	1,187	991	96	1,536	59	2,682	1,495	5,216
2036	0	375	841	0	1,217	982	93	1,612	62	2,748	1,532	5,369
2037	0	384	862	0	1,247	1,002	91	1,648	66	2,807	1,560	5,513
2038	0	463	1,007	0	1,469	974	88	1,715	70	2,847	1,378	5,630
2039	0	228	409	0	637	957	87	1,758	72	2,873	2,236	5,804
2040	0	414	929	0	1,343	999	85	1,793	76	2,952	1,610	5,919
2041	0	424	952	0	1,376	989	83	1,856	81	3,009	1,633	6,026
2042	0	511	1,111	0	1,622	972	82	1,922	123	3,099	1,477	6,115
2043	0	446	1,000	0	1,446	975	80	2,055	169	3,279	1,833	6,216
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
NOM	0	9,860	21,920	0	31,780	23,313	3,459	40,950	1,902	69,625	37,846	
NPV	0	2,367	5,371	0	7,738	4,207	953	8,383	411	13,954	6,216	

Discount Rate: 8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) : 1.89

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_RIBQ
PROGRAM NAME: Residential Low Income Weatherization

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILLS \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O&M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	53	0	297	0	350	304	0	0	304	46	42
2011	165	0	297	0	462	312	0	0	312	150	168
2012	290	0	297	0	587	320	0	0	320	267	375
2013	426	0	297	0	723	328	0	0	328	395	656
2014	581	0	357	0	938	404	0	0	404	534	1,005
2015	745	0	432	0	1,177	501	0	0	501	676	1,411
2016	910	0	432	0	1,342	514	0	0	514	828	1,867
2017	1,088	0	432	0	1,520	526	0	0	526	994	2,370
2018	1,267	0	492	0	1,759	614	0	0	614	1,145	2,902
2019	1,391	0	195	0	1,586	250	0	0	250	1,337	3,473
2020	1,396	0	432	0	1,828	567	0	0	567	1,261	3,967
2021	1,426	0	432	0	1,858	581	0	0	581	1,277	4,427
2022	1,467	0	492	0	1,959	678	0	0	678	1,281	4,850
2023	1,512	0	432	0	1,944	610	0	0	610	1,333	5,255
2024	1,579	0	357	0	1,936	517	0	0	517	1,419	5,651
2025	1,636	0	432	0	2,068	641	0	0	641	1,426	6,016
2026	1,701	0	492	0	2,193	749	0	0	749	1,445	6,356
2027	1,790	0	432	0	2,222	674	0	0	674	1,549	6,690
2028	1,863	0	432	0	2,295	691	0	0	691	1,605	7,009
2029	1,947	0	195	0	2,142	320	0	0	320	1,822	7,340
2030	2,042	0	492	0	2,534	826	0	0	826	1,707	7,626
2031	2,135	0	432	0	2,567	744	0	0	744	1,823	7,906
2032	2,261	0	432	0	2,693	762	0	0	762	1,931	8,179
2033	2,463	0	432	0	2,895	781	0	0	781	2,114	8,453
2034	2,509	0	417	0	2,926	773	0	0	773	2,153	8,709
2035	2,608	0	432	0	3,040	821	0	0	821	2,219	8,951
2036	2,795	0	432	0	3,227	841	0	0	841	2,385	9,191
2037	2,944	0	432	0	3,376	862	0	0	862	2,514	9,423
2038	3,072	0	492	0	3,564	1,007	0	0	1,007	2,557	9,639
2039	3,213	0	195	0	3,408	409	0	0	409	2,999	9,872
2040	3,363	0	432	0	3,795	929	0	0	929	2,866	10,077
2041	3,540	0	432	0	3,972	952	0	0	952	3,020	10,275
2042	3,730	0	492	0	4,222	1,111	0	0	1,111	3,111	10,462
2043	3,933	0	432	0	4,365	1,000	0	0	1,000	3,364	10,648
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
NOM	63,840	0	13,632	0	77,472	21,920	0	0	21,920	55,552	
NPV	12,019	0	4,000	0	16,019	5,371	0	0	5,371	10,648	

In Service of Gen Unit:

Discount Rate :

2019

8.89 %

Benefit/Cost Ratio (Col(6) / Col(10))

2.98

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential AC Tune-up and Maintenance

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	WORTH	PW FIXED	COST BASIS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	23,391	727	0	1,632	1,077	394	139	912	2	4,884	4,884	4,884	22,812
2020	22,477	698	0	1,569	740	378	143	912	299	4,738	4,352	9,235	23,383
2021	21,266	661	0	1,484	733	361	146	912	252	4,550	3,838	13,073	23,967
2022	20,101	624	0	1,403	725	345	150	912	210	4,369	3,384	16,457	24,566
2023	18,979	590	0	1,324	716	328	154	912	170	4,194	2,983	19,441	25,181
2024	17,897	556	0	1,249	705	312	157	912	133	4,025	2,629	22,070	25,810
2025	16,851	523	0	1,176	693	296	161	912	99	3,861	2,317	24,387	26,455
2026	15,839	492	0	1,105	680	279	165	912	68	3,702	2,040	26,427	27,117
2027	14,859	462	0	1,037	642	263	170	912	63	3,548	1,796	28,222	27,795
2028	13,884	431	0	969	599	246	174	912	63	3,395	1,578	29,800	28,490
2029	12,909	401	0	901	557	230	178	912	63	3,242	1,384	31,184	29,202
2030	11,934	371	0	833	514	214	183	912	63	3,089	1,211	32,394	29,932
2031	10,959	340	0	765	471	197	187	912	63	2,936	1,057	33,451	30,680
2032	9,983	310	0	697	428	181	192	912	63	2,783	920	34,371	31,447
2033	9,008	280	0	629	386	164	197	912	63	2,630	799	35,170	32,233
2034	8,033	250	0	561	343	148	202	912	63	2,478	691	35,861	33,039
2035	7,058	219	0	493	300	131	207	912	63	2,325	595	36,456	33,865
2036	6,083	189	0	425	257	115	212	912	63	2,173	511	36,967	34,712
2037	5,108	159	0	356	215	99	217	912	63	2,021	436	37,404	35,580
2038	4,133	128	0	288	172	82	222	912	63	1,868	371	37,774	36,469
2039	3,157	98	0	220	320	66	228	912	(128)	1,717	313	38,087	37,381
2040	2,373	74	0	166	477	49	234	912	(319)	1,592	266	38,353	38,315
2041	1,780	55	0	124	451	33	240	912	(319)	1,496	230	38,583	39,273
2042	1,186	37	0	83	425	16	246	912	(319)	1,400	198	38,781	40,255
2043	593	18	0	41	399	0	252	912	(319)	1,303	169	38,950	41,261

IN SERVICE COST (\$000)	22,812
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST
DEBT	44%	7.03 %
P/S	0%	0.00 %
C/S	56%	12.50 %

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential AC Tune-up and Maintenance

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX	TAX	ACCUMULATED	BOOK	ACCUMULATED	BOOK	ACCUMULATED	DEFERRED	TOTAL	BOOK DEPR	(10)*(11)	SALVAGE	ANNUAL	ACCUMULATED
	DEPRECIATION	DEPRECIATION	TAX	DEPRECIATION	BOOK	DEPRECIATION	DEPRECIATION	TAX	EQUITY	RATE	TAX RATE	TAX RATE	DEFERRED TAX	DEFERRED
	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	MINUS 1/LIFE	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	832	832	912	912	827	827	2	2,129	0	0	0	2	(577)
2020	7.22%	1,601	2,433	912	1,825	827	1,655	299	2,129	0	0	0	299	(279)
2021	6.68%	1,481	3,915	912	2,737	827	2,482	252	2,129	0	0	0	252	(26)
2022	6.18%	1,371	5,286	912	3,650	827	3,309	210	2,129	0	0	0	210	183
2023	5.71%	1,267	6,553	912	4,562	827	4,137	170	2,129	0	0	0	170	353
2024	5.29%	1,172	7,725	912	5,475	827	4,964	133	2,129	0	0	0	133	486
2025	4.89%	1,084	8,810	912	6,387	827	5,791	99	2,129	0	0	0	99	585
2026	4.52%	1,003	9,813	912	7,300	827	6,619	68	2,129	0	0	0	68	653
2027	4.46%	990	10,803	912	8,212	827	7,446	63	2,129	0	0	0	63	716
2028	4.46%	990	11,792	912	9,125	827	8,273	63	2,129	0	0	0	63	779
2029	4.46%	990	12,782	912	10,037	827	9,101	63	2,129	0	0	0	63	841
2030	4.46%	990	13,772	912	10,950	827	9,928	63	2,129	0	0	0	63	904
2031	4.46%	990	14,762	912	11,862	827	10,755	63	2,129	0	0	0	63	967
2032	4.46%	990	15,751	912	12,775	827	11,583	63	2,129	0	0	0	63	1,029
2033	4.46%	990	16,741	912	13,687	827	12,410	63	2,129	0	0	0	63	1,092
2034	4.46%	990	17,731	912	14,600	827	13,237	63	2,129	0	0	0	63	1,154
2035	4.46%	990	18,720	912	15,512	827	14,065	63	2,129	0	0	0	63	1,217
2036	4.46%	990	19,710	912	16,425	827	14,892	63	2,129	0	0	0	63	1,280
2037	4.46%	990	20,700	912	17,337	827	15,719	63	2,129	0	0	0	63	1,342
2038	4.46%	990	21,690	912	18,250	827	16,546	63	2,129	0	0	0	63	1,405
2039	2.23%	495	22,184	912	19,162	827	17,374	(128)	2,129	0	0	0	(128)	1,277
2040	0.00%	0	22,184	912	20,075	827	18,201	(319)	2,129	0	0	0	(319)	958
2041	0.00%	0	22,184	912	20,987	827	19,028	(319)	2,129	0	0	0	(319)	639
2042	0.00%	0	22,184	912	21,900	827	19,856	(319)	2,129	0	0	0	(319)	319
2043	0.00%	0	22,184	912	22,812	827	20,683	(319)	2,129	0	0	0	(319)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(579)
TOTAL EQUITY APUDC CAPITALIZED (SEE PAGE 5)	2,129
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

page 4b

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PSC FORM CE 1.1A

PROGRAM METHOD SELECTED: REV_REQ

PAGE 2b OF 2

PROGRAM NAME: Residential AC Tune-up and Maintenance

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END									
OF YEAR									
NET									
	TAX	TAX	DEFERRED	PLANT IN	ACCUMULATED	ACCUMULATED	BEGINNING	ENDING OF	MID-YEAR
	DEPRECIATION	DEPRECIATION	TAX	SERVICE	DEPRECIATION	DEF TAXES	YEAR RATE	YEAR RATE	RATE BASE
YEAR	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	832	2	21,900	912	(577)	23,391	22,477	22,934
2020	7.22%	1,601	299	20,987	1,825	(279)	22,477	21,266	21,871
2021	6.68%	1,481	252	20,075	2,737	(26)	21,266	20,101	20,684
2022	6.18%	1,371	210	19,162	3,650	183	20,101	18,979	19,540
2023	5.71%	1,267	170	18,250	4,562	353	18,979	17,897	18,438
2024	5.29%	1,172	133	17,337	5,475	486	17,897	16,851	17,374
2025	4.89%	1,084	99	16,425	6,387	585	16,851	15,839	16,345
2026	4.52%	1,003	68	15,512	7,300	653	15,839	14,859	15,349
2027	4.46%	990	63	14,600	8,212	716	14,859	13,884	14,372
2028	4.46%	990	63	13,687	9,125	779	13,884	12,909	13,396
2029	4.46%	990	63	12,775	10,037	841	12,909	11,934	12,421
2030	4.46%	990	63	11,862	10,950	904	11,934	10,959	11,446
2031	4.46%	990	63	10,950	11,862	967	10,959	9,983	10,471
2032	4.46%	990	63	10,037	12,775	1,029	9,983	9,008	9,496
2033	4.46%	990	63	9,125	13,687	1,092	9,008	8,033	8,521
2034	4.46%	990	63	8,212	14,600	1,154	8,033	7,058	7,546
2035	4.46%	990	63	7,300	15,512	1,217	7,058	6,083	6,570
2036	4.46%	990	63	6,387	16,425	1,280	6,083	5,108	5,595
2037	4.46%	990	63	5,475	17,337	1,342	5,108	4,133	4,620
2038	4.46%	990	63	4,562	18,250	1,405	4,133	3,157	3,645
2039	2.23%	495	(128)	3,650	19,162	1,277	3,157	2,373	2,765
2040	0.00%	0	(319)	2,737	20,075	958	2,373	1,780	2,076
2041	0.00%	0	(319)	1,825	20,987	639	1,780	1,186	1,483
2042	0.00%	0	(319)	912	21,900	319	1,186	593	890
2043	0.00%	0	(319)	0	22,812	0	593	0	296

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	19,452	19,452	19,452
EQUITY AFUDC	2,129		
DEBT AFUDC	1,231	1,231	
CPI			2,732
TOTAL	22,812	20,683	22,184

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

PSC FORM CE 2.3
PAGE 1 OF 1

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential AC Tune-up and Maintenance

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	0	0	0	0	0	0	0	0	0	0	(0)
2011	0	534	1,237	0	1,771	0	0	140	1	141	(1,630)	(1,375)
2012	0	605	1,403	0	2,008	0	84	433	2	519	(1,490)	(2,529)
2013	0	685	1,590	0	2,275	0	185	731	60	976	(1,299)	(3,453)
2014	0	776	1,799	0	2,575	0	291	1,101	97	1,489	(1,086)	(4,163)
2015	0	1,141	2,506	0	3,647	0	408	1,670	146	2,223	(1,424)	(5,017)
2016	0	1,289	2,832	0	4,121	0	539	2,645	216	3,400	(722)	(5,415)
2017	0	1,455	3,196	0	4,651	0	685	3,639	298	4,621	(31)	(5,430)
2018	0	1,640	3,602	0	5,242	0	848	4,677	387	5,912	669	(5,119)
2019	0	725	1,299	0	2,024	5,866	1,016	5,827	213	12,923	10,899	(467)
2020	0	820	1,469	0	2,289	5,453	987	6,061	135	12,636	10,348	3,589
2021	0	1,303	2,695	0	3,998	5,233	958	6,301	135	12,628	8,629	6,695
2022	0	1,472	3,047	0	4,519	5,201	930	6,566	139	12,837	8,318	9,445
2023	0	1,284	2,764	0	4,049	5,295	904	6,544	131	12,873	8,825	12,125
2024	0	1,453	3,127	0	4,580	5,354	877	6,774	129	13,134	8,554	14,510
2025	0	1,642	3,534	0	5,176	5,344	852	6,937	119	13,252	8,076	16,578
2026	0	1,853	3,988	0	5,841	5,380	827	6,916	103	13,227	7,386	18,315
2027	0	1,672	3,749	0	5,421	5,423	802	6,983	91	13,299	7,878	20,017
2028	0	1,887	4,229	0	6,116	5,398	777	7,127	96	13,399	7,283	21,461
2029	0	1,128	2,022	0	3,150	5,540	753	7,016	92	13,400	10,250	23,329
2030	0	1,273	2,281	0	3,554	5,338	728	7,136	75	13,478	9,923	24,989
2031	0	1,458	3,073	0	4,530	5,497	704	7,363	83	13,647	9,117	26,390
2032	0	1,650	3,479	0	5,129	5,669	680	7,173	78	13,600	8,471	27,585
2033	0	1,866	3,935	0	5,801	5,655	656	7,437	(14)	13,735	7,934	28,613
2034	0	2,107	4,445	0	6,552	5,918	634	7,201	(49)	13,704	7,152	29,465
2035	0	1,869	4,107	0	5,976	6,008	614	7,728	(61)	14,289	8,313	30,373
2036	0	2,112	4,640	0	6,753	5,952	595	8,118	(79)	14,586	7,833	31,160
2037	0	2,385	5,237	0	7,621	6,079	578	8,266	(91)	14,831	7,210	31,824
2038	0	2,688	5,902	0	8,590	5,906	562	8,608	(104)	14,973	6,383	32,365
2039	0	1,188	2,128	0	3,316	5,804	550	8,793	(133)	15,013	11,697	33,274
2040	0	1,343	2,407	0	3,751	6,055	539	8,947	(155)	15,385	11,655	34,105
2041	0	2,135	4,416	0	6,552	5,996	528	9,239	(171)	15,593	9,041	34,698
2042	0	2,413	4,992	0	7,405	5,891	518	9,549	34	15,993	8,588	35,215
2043	0	2,105	4,529	0	6,634	5,909	508	10,283	257	16,957	10,323	35,786
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
NOM	0	49,937	105,662	0	155,620	141,367	21,117	203,930	2,258	368,671	213,052	
NPV	0	11,602	24,931	0	36,533	25,513	5,427	40,330	1,049	72,319	35,786	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)):

1.98

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential AC Tune-up and Maintenance

PSC FORM CE 2.4
 PAGE 1 OF 1

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0	0
2011	208	0	357	0	566	1,237	0	0	1,237	(672)	(566)
2012	683	0	395	0	1,078	1,403	0	0	1,403	(325)	(818)
2013	1,255	0	437	0	1,692	1,590	0	0	1,590	102	(746)
2014	1,961	0	483	0	2,444	1,799	0	0	1,799	645	(324)
2015	2,785	0	643	0	3,428	2,506	0	0	2,506	922	229
2016	3,710	0	709	0	4,419	2,832	0	0	2,832	1,587	1,104
2017	4,793	0	781	0	5,574	3,196	0	0	3,196	2,378	2,307
2018	5,996	0	859	0	6,855	3,602	0	0	3,602	3,253	3,819
2019	6,798	0	277	0	7,075	1,299	0	0	1,299	5,776	6,284
2020	6,819	0	306	0	7,125	1,469	0	0	1,469	5,656	8,501
2021	6,967	0	583	0	7,550	2,695	0	0	2,695	4,855	10,249
2022	7,169	0	643	0	7,813	3,047	0	0	3,047	4,766	11,824
2023	7,387	0	578	0	7,965	2,764	0	0	2,764	5,201	13,403
2024	7,715	0	638	0	8,353	3,127	0	0	3,127	5,226	14,860
2025	7,992	0	703	0	8,695	3,534	0	0	3,534	5,161	16,182
2026	8,313	0	774	0	9,087	3,988	0	0	3,988	5,099	17,381
2027	8,747	0	721	0	9,468	3,749	0	0	3,749	5,719	18,617
2028	9,103	0	793	0	9,896	4,229	0	0	4,229	5,667	19,741
2029	9,510	0	337	0	9,847	2,022	0	0	2,022	7,825	21,166
2030	9,976	0	371	0	10,347	2,281	0	0	2,281	8,065	22,516
2031	10,430	0	523	0	10,953	3,073	0	0	3,073	7,881	23,727
2032	11,046	0	578	0	11,624	3,479	0	0	3,479	8,145	24,876
2033	12,034	0	638	0	12,672	3,935	0	0	3,935	8,737	26,008
2034	12,260	0	703	0	12,963	4,445	0	0	4,445	8,517	27,022
2035	12,742	0	643	0	13,385	4,107	0	0	4,107	9,278	28,036
2036	13,654	0	709	0	14,363	4,640	0	0	4,640	9,722	29,012
2037	14,384	0	781	0	15,165	5,237	0	0	5,237	9,928	29,927
2038	15,010	0	859	0	15,869	5,902	0	0	5,902	9,967	30,771
2039	15,698	0	277	0	15,975	2,128	0	0	2,128	13,847	31,848
2040	16,429	0	306	0	16,735	2,407	0	0	2,407	14,328	32,871
2041	17,298	0	583	0	17,881	4,416	0	0	4,416	13,464	33,754
2042	18,225	0	643	0	18,868	4,992	0	0	4,992	13,875	34,590
2043	19,215	0	578	0	19,793	4,529	0	0	4,529	15,263	35,434
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
NOM	306,310	0	19,211	0	325,521	105,662	0	0	105,662	219,859	
NPV	54,980	0	5,385	0	60,365	24,931	0	0	24,931	35,434	

In Service of Gen Unit:

2019

Discount Rate :

8.89 %

Benefit/Cost Ratio (Col(6) / Col(10))

2.42

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Air-Conditioning

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
												REPLACEMENT COST BASIS FOR PROPERTY INSURANCE	
YEAR	BEG-YEAR RATE BASE	DEBT	PREFERRED STOCK	COMMON EQUITY	INCOME TAXES	PROPERTY TAX	PROPERTY INSURANCE	DEPREC.	DEFERRED TAXES	TOTAL FIXED CHARGES	PRESENT WORTH FIXED CHARGES	CUMULATIVE PW FIXED CHARGES	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	514,111	15,970	0	35,879	23,669	8,664	3,058	20,056	39	107,334	107,334	107,334	501,388
2020	494,017	15,346	0	34,476	16,263	8,303	3,135	20,056	6,563	104,143	95,643	202,977	513,923
2021	467,398	14,519	0	32,619	16,116	7,942	3,213	20,056	5,544	100,009	84,350	287,328	526,771
2022	441,799	13,724	0	30,832	15,929	7,581	3,294	20,056	4,609	96,024	74,380	361,708	539,940
2023	417,134	12,958	0	29,111	15,726	7,220	3,376	20,056	3,731	92,177	65,573	427,280	553,438
2024	393,348	12,219	0	27,451	15,489	6,859	3,460	20,056	2,926	88,459	57,792	485,072	567,274
2025	370,367	11,505	0	25,847	15,228	6,498	3,547	20,056	2,179	84,860	50,916	535,988	581,456
2026	348,132	10,814	0	24,295	14,942	6,137	3,636	20,056	1,491	81,371	44,837	580,825	595,993
2027	326,586	10,145	0	22,792	14,111	5,776	3,726	20,056	1,378	77,983	39,464	620,289	610,892
2028	305,153	9,479	0	21,296	13,173	5,415	3,820	20,056	1,376	74,615	34,677	654,966	626,165
2029	283,721	8,814	0	19,800	12,232	5,054	3,915	20,056	1,378	71,248	30,410	685,376	641,819
2030	262,288	8,148	0	18,304	11,295	4,693	4,013	20,056	1,376	67,884	26,610	711,986	657,864
2031	240,856	7,482	0	16,809	10,354	4,332	4,113	20,056	1,378	64,523	23,228	735,214	674,311
2032	219,423	6,816	0	15,313	9,416	3,971	4,216	20,056	1,376	61,164	20,222	755,435	691,169
2033	197,991	6,150	0	13,817	8,475	3,610	4,322	20,056	1,378	57,808	17,552	772,987	708,448
2034	176,558	5,485	0	12,322	7,538	3,249	4,430	20,056	1,376	54,454	15,184	788,172	726,159
2035	155,126	4,819	0	10,826	6,596	2,888	4,540	20,056	1,378	51,103	13,087	801,259	744,313
2036	133,693	4,153	0	9,330	5,659	2,527	4,654	20,056	1,376	47,754	11,231	812,490	762,921
2037	112,261	3,487	0	7,834	4,718	2,166	4,770	20,056	1,378	44,409	9,592	822,082	781,994
2038	90,828	2,821	0	6,339	3,780	1,805	4,889	20,056	1,376	41,066	8,146	830,228	801,544
2039	69,397	2,156	0	4,843	2,843	1,444	5,012	20,056	(2,818)	37,727	6,873	837,101	821,582
2040	52,159	1,620	0	3,640	2,047	1,083	5,137	20,056	(7,014)	34,997	5,855	842,956	842,122
2041	39,118	1,215	0	2,730	1,504	722	5,265	20,056	(7,014)	32,878	5,052	848,008	863,175
2042	26,077	810	0	1,820	1,033	361	5,397	20,056	(7,014)	30,762	4,341	852,349	884,754
2043	13,036	405	0	910	676	0	5,532	20,056	(7,014)	28,649	3,713	856,062	906,873

IN SERVICE COST (\$000)	501,388
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST
DEBT	44%	7.03
P/S	0%	0.00
C/S	56%	12.50

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	18,284	18,284	20,056	20,056	18,184	18,184	39	46,799	0	0	0	39	(12,685)
2020	7.22%	35,198	53,482	20,056	40,111	18,184	36,367	6,563	46,799	0	0	0	6,563	(6,121)
2021	6.68%	32,555	86,037	20,056	60,167	18,184	54,551	5,544	46,799	0	0	0	5,544	(578)
2022	6.18%	30,132	116,169	20,056	80,222	18,184	72,734	4,609	46,799	0	0	0	4,609	4,032
2023	5.71%	27,855	144,024	20,056	100,278	18,184	90,918	3,731	46,799	0	0	0	3,731	7,762
2024	5.29%	25,768	169,792	20,056	120,333	18,184	109,101	2,926	46,799	0	0	0	2,926	10,688
2025	4.89%	23,833	193,625	20,056	140,389	18,184	127,285	2,179	46,799	0	0	0	2,179	12,867
2026	4.52%	22,048	215,673	20,056	160,444	18,184	145,468	1,491	46,799	0	0	0	1,491	14,358
2027	4.46%	21,755	237,428	20,056	180,500	18,184	163,652	1,378	46,799	0	0	0	1,378	15,736
2028	4.46%	21,751	259,179	20,056	200,555	18,184	181,835	1,376	46,799	0	0	0	1,376	17,112
2029	4.46%	21,755	280,934	20,056	220,611	18,184	200,019	1,378	46,799	0	0	0	1,378	18,490
2030	4.46%	21,751	302,685	20,056	240,666	18,184	218,202	1,376	46,799	0	0	0	1,376	19,866
2031	4.46%	21,755	324,440	20,056	260,722	18,184	236,386	1,378	46,799	0	0	0	1,378	21,243
2032	4.46%	21,751	346,191	20,056	280,777	18,184	254,570	1,376	46,799	0	0	0	1,376	22,619
2033	4.46%	21,755	367,946	20,056	300,833	18,184	272,753	1,378	46,799	0	0	0	1,378	23,997
2034	4.46%	21,751	389,697	20,056	320,888	18,184	290,937	1,376	46,799	0	0	0	1,376	25,373
2035	4.46%	21,755	411,452	20,056	340,944	18,184	309,120	1,378	46,799	0	0	0	1,378	26,751
2036	4.46%	21,751	433,203	20,056	360,999	18,184	327,304	1,376	46,799	0	0	0	1,376	28,127
2037	4.46%	21,755	454,958	20,056	381,055	18,184	345,487	1,378	46,799	0	0	0	1,378	29,505
2038	4.46%	21,751	476,709	20,056	401,110	18,184	363,671	1,376	46,799	0	0	0	1,376	30,881
2039	2.23%	10,878	487,587	20,056	421,166	18,184	381,854	(2,818)	46,799	0	0	0	(2,818)	28,063
2040	0.00%	0	487,587	20,056	441,221	18,184	400,038	(7,014)	46,799	0	0	0	(7,014)	21,049
2041	0.00%	0	487,587	20,056	461,277	18,184	418,221	(7,014)	46,799	0	0	0	(7,014)	14,034
2042	0.00%	0	487,587	20,056	481,332	18,184	436,405	(7,014)	46,799	0	0	0	(7,014)	7,020
2043	0.00%	0	487,587	20,056	501,388	18,184	454,588	(7,014)	46,799	0	0	0	(7,014)	6

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(12,723)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	46,799
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	END OF YEAR NET			BEGINNING	ENDING OF	MID-YEAR RATE BASE \$(000)
				PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	YEAR RATE BASE \$(000)	YEAR RATE BASE \$(000)	
2019	3.75%	18,284	39	481,332	20,056	(12,685)	514,111	494,017	504,064
2020	7.22%	35,198	6,563	461,277	40,111	(6,121)	494,017	467,398	480,708
2021	6.68%	32,555	5,544	441,221	60,167	(578)	467,398	441,799	454,599
2022	6.18%	30,132	4,609	421,166	80,222	4,032	441,799	417,134	429,467
2023	5.71%	27,855	3,731	401,110	100,278	7,762	417,134	393,348	405,241
2024	5.29%	25,768	2,926	381,055	120,333	10,688	393,348	370,367	381,857
2025	4.89%	23,833	2,179	360,999	140,389	12,867	370,367	348,132	359,249
2026	4.52%	22,048	1,491	340,944	160,444	14,358	348,132	326,586	337,359
2027	4.46%	21,755	1,378	320,888	180,500	15,736	326,586	305,153	315,869
2028	4.46%	21,751	1,376	300,833	200,555	17,112	305,153	283,721	294,437
2029	4.46%	21,755	1,378	280,777	220,611	18,490	283,721	262,288	273,004
2030	4.46%	21,751	1,376	260,722	240,666	19,866	262,288	240,856	251,572
2031	4.46%	21,755	1,378	240,666	260,722	21,243	240,856	219,423	230,139
2032	4.46%	21,751	1,376	220,611	280,777	22,619	219,423	197,991	208,707
2033	4.46%	21,755	1,378	200,555	300,833	23,997	197,991	176,558	187,275
2034	4.46%	21,751	1,376	180,500	320,888	25,373	176,558	155,126	165,842
2035	4.46%	21,755	1,378	160,444	340,944	26,751	155,126	133,693	144,410
2036	4.46%	21,751	1,376	140,389	360,999	28,127	133,693	112,261	122,977
2037	4.46%	21,755	1,378	120,333	381,055	29,505	112,261	90,828	101,545
2038	4.46%	21,751	1,376	100,278	401,110	30,881	90,828	69,397	80,112
2039	2.23%	10,878	(2,818)	80,222	421,166	28,063	69,397	52,159	60,778
2040	0.00%	0	(7,014)	60,167	441,221	21,049	52,159	39,118	45,639
2041	0.00%	0	(7,014)	40,111	461,277	14,034	39,118	26,077	32,597
2042	0.00%	0	(7,014)	20,056	481,332	7,020	26,077	13,036	19,556
2043	0.00%	0	(7,014)	0	501,388	6	13,036	-6	6,515

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	427,524	427,524	427,524
EQUITY AFUDC	46,799		
DEBT AFUDC	27,065	27,065	
CPI			60,048
TOTAL	501,388	454,588	487,572

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Air-Conditioning

PSC FORM CE 2.3
 PAGE 1 OF 1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	4,332	107,272	0	111,603	0	0	4,498	38	4,536	(107,067)	(98,329)
2011	0	3,892	92,357	0	96,249	0	2,435	12,013	47	14,495	(81,755)	(167,283)
2012	0	4,515	108,579	0	113,094	0	4,549	19,648	74	24,271	(88,823)	(236,085)
2013	0	4,962	118,905	0	123,866	0	7,138	27,347	2,250	36,735	(87,131)	(298,068)
2014	0	5,280	125,604	0	130,884	0	9,752	36,838	3,277	49,867	(81,017)	(350,997)
2015	0	5,334	128,792	0	134,126	0	12,478	51,132	4,529	68,139	(65,988)	(390,590)
2016	0	5,099	122,330	0	127,429	0	15,157	74,514	6,145	95,816	(31,613)	(408,009)
2017	0	4,162	108,419	0	112,581	0	17,619	93,666	7,704	118,989	6,408	(404,766)
2018	0	3,827	100,512	0	104,339	0	19,495	109,443	9,213	138,151	33,812	(389,052)
2019	0	0	0	0	0	129,498	21,009	129,582	5,011	285,100	285,100	(267,366)
2020	0	0	0	0	0	120,376	20,406	134,642	3,315	278,738	278,738	(158,104)
2021	0	0	0	0	0	115,520	19,814	140,183	3,342	278,858	278,858	(57,717)
2022	0	0	0	0	0	114,816	19,242	145,282	3,333	282,673	282,673	35,738
2023	0	0	0	0	0	116,877	18,686	144,624	3,192	283,378	283,378	121,779
2024	0	0	0	0	0	118,181	18,141	150,088	3,169	289,579	289,579	202,528
2025	0	6,273	155,362	0	161,635	117,961	17,605	153,190	3,012	291,769	130,134	235,854
2026	0	5,637	133,760	0	139,398	118,766	17,075	153,431	2,830	292,101	152,703	271,768
2027	0	6,539	157,255	0	163,794	119,720	16,547	154,664	2,489	293,420	129,626	299,766
2028	0	7,186	172,210	0	179,396	119,159	16,022	157,306	2,681	295,168	115,772	322,731
2029	0	7,646	181,912	0	189,559	122,287	15,498	155,598	2,722	296,104	106,545	342,141
2030	0	7,726	186,529	0	194,255	122,256	14,976	158,650	2,373	298,254	103,999	359,541
2031	0	7,384	177,171	0	184,555	121,340	14,463	163,536	2,616	301,955	117,400	377,580
2032	0	6,027	157,023	0	163,050	125,140	13,973	159,943	2,633	301,689	138,638	397,143
2033	0	5,542	145,571	0	151,114	124,836	13,513	165,923	602	304,874	153,761	417,070
2034	0	0	0	0	0	130,645	13,086	161,669	(56)	305,344	305,344	453,412
2035	0	0	0	0	0	132,616	12,694	172,905	(207)	318,008	318,008	488,171
2036	0	0	0	0	0	131,379	12,340	181,507	(518)	324,708	324,708	520,766
2037	0	0	0	0	0	134,185	12,024	185,108	(669)	330,648	330,648	551,249
2038	0	0	0	0	0	130,379	11,744	192,715	(885)	333,954	333,954	579,524
2039	0	0	0	0	0	128,113	11,497	197,291	(1,400)	335,501	335,501	605,611
2040	0	9,086	225,010	0	234,096	133,668	11,272	201,030	(1,739)	344,231	110,136	613,476
2041	0	8,165	193,725	0	201,890	132,364	11,057	207,909	(1,962)	349,368	147,479	623,148
2042	0	9,471	227,752	0	237,223	130,045	10,844	214,955	2,709	358,552	121,329	630,455
2043	0	10,407	249,411	0	259,818	130,441	10,633	230,647	7,769	379,489	119,671	637,075
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
NM	0	138,492	3,325,462	0	3,513,954	3,120,564	462,783	4,641,478	79,639	8,304,464	4,790,510	
NPV	0	41,121	1,001,675	0	1,042,796	563,172	128,336	958,145	30,017	1,679,871	637,075	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) :

1.61

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
 PROGRAM METHOD SELECTED: RFV_REQ
 PROGRAM NAME: **Residential Air-Conditioning**

PSC FORM CE 2.4
 PAGE 1 OF 1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILLS \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O&M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	6,115	0	64,551	0	70,666	107,272	0	0	107,272	(36,606)	(33,618)
2011	18,068	0	54,967	0	73,035	92,357	0	0	92,357	(19,322)	(49,915)
2012	31,336	0	62,680	0	94,016	108,579	0	0	108,579	(14,563)	(61,196)
2013	47,146	0	67,066	0	114,212	118,905	0	0	118,905	(4,693)	(64,534)
2014	65,886	0	69,251	0	135,137	125,604	0	0	125,604	9,532	(58,306)
2015	85,934	0	69,222	0	155,156	128,792	0	0	128,792	26,364	(42,488)
2016	105,640	0	63,414	0	169,054	122,330	0	0	122,330	46,724	(16,742)
2017	125,014	0	54,804	0	179,818	108,419	0	0	108,419	71,399	19,390
2018	142,440	0	49,051	0	191,491	100,512	0	0	100,512	90,979	61,672
2019	154,550	0	0	0	154,550	0	0	0	0	154,550	127,637
2020	155,032	0	0	0	155,032	0	0	0	0	155,032	188,408
2021	158,408	0	0	0	158,408	0	0	0	0	158,408	245,433
2022	163,003	0	0	0	163,003	0	0	0	0	163,003	299,324
2023	167,943	0	0	0	167,943	0	0	0	0	167,943	350,316
2024	175,400	0	0	0	175,400	0	0	0	0	175,400	399,226
2025	181,697	0	64,551	0	246,248	155,362	0	0	155,362	90,886	422,501
2026	188,998	0	54,967	0	243,965	133,760	0	0	133,760	110,205	448,420
2027	198,880	0	62,680	0	261,560	157,255	0	0	157,255	104,305	470,949
2028	206,962	0	67,066	0	274,029	172,210	0	0	172,210	101,819	491,147
2029	216,226	0	69,251	0	285,476	181,912	0	0	181,912	103,564	510,014
2030	226,803	0	69,222	0	296,025	186,529	0	0	186,529	109,496	528,333
2031	237,135	0	63,414	0	300,549	177,171	0	0	177,171	123,378	547,290
2032	251,142	0	54,804	0	305,946	157,023	0	0	157,023	148,923	568,305
2033	273,601	0	49,051	0	322,651	145,571	0	0	145,571	177,080	591,254
2034	278,732	0	0	0	278,732	0	0	0	0	278,732	624,428
2035	289,696	0	0	0	289,696	0	0	0	0	289,696	656,093
2036	310,424	0	0	0	310,424	0	0	0	0	310,424	687,254
2037	327,038	0	0	0	327,038	0	0	0	0	327,038	717,404
2038	341,271	0	0	0	341,271	0	0	0	0	341,271	746,298
2039	356,904	0	0	0	356,904	0	0	0	0	356,904	774,050
2040	373,532	0	64,551	0	438,084	225,010	0	0	225,010	213,074	789,265
2041	393,277	0	54,967	0	448,244	193,725	0	0	193,725	254,519	805,957
2042	414,354	0	62,680	0	477,034	227,752	0	0	227,752	249,282	820,971
2043	436,858	0	67,066	0	503,924	249,411	0	0	249,411	254,513	835,049
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
NOM	7,105,445	0	1,359,276	0	8,464,720	3,375,462	0	0	3,375,462	5,089,258	
NPV	1,342,541	0	494,183	0	1,836,724	1,001,675	0	0	1,001,675	835,049	

In Service of Gen Unit:

2019

Discount Rate :

8.89 %

Benefit/Cost Ratio (Co(6) / Co(10))

1.83

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Residential AC Tune-up and Maintenance

PSC FORM CF 2.5

PAGE 1 OF 1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS	INCENTIVES	REVENUE LOSSES	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT & FUEL BENEFITS	AVOIDED T&D BENEFITS	REVENUE GAINS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	0	0	0	0	0	0	0	0	0	0	0	(0)
2011	0	534	357	158	0	1,049	140	0	0	1	141	(909)	(767)
2012	0	605	395	519	0	1,519	433	84	0	2	519	(1,001)	(1,542)
2013	0	685	437	954	0	2,076	731	185	0	60	976	(1,100)	(2,325)
2014	0	776	483	1,491	0	2,749	1,101	291	0	97	1,489	(1,260)	(3,148)
2015	0	1,141	643	2,117	0	3,901	1,670	408	0	146	2,223	(1,678)	(4,154)
2016	0	1,289	709	2,819	0	4,818	2,645	539	0	216	3,400	(1,418)	(4,986)
2017	0	1,455	781	3,643	0	5,879	3,639	685	0	298	4,621	(1,238)	(5,573)
2018	0	1,640	859	4,557	0	7,056	4,677	848	0	387	5,912	(1,144)	(6,104)
2019	0	725	277	5,166	0	6,168	11,694	1,016	0	213	12,923	6,755	(3,221)
2020	0	820	306	5,182	0	6,308	11,514	987	0	135	12,636	6,328	(741)
2021	0	1,303	583	5,295	0	7,181	11,534	958	0	135	12,628	5,446	1,220
2022	0	1,472	643	5,449	0	7,564	11,767	930	0	139	12,837	5,272	2,963
2023	0	1,284	578	5,614	0	7,476	11,838	904	0	131	12,873	5,397	4,602
2024	0	1,453	638	5,863	0	7,954	12,128	877	0	129	13,134	5,180	6,046
2025	0	1,642	703	6,074	0	8,419	12,280	852	0	119	13,252	4,833	7,284
2026	0	1,833	774	6,318	0	8,945	12,297	827	0	103	13,227	4,282	8,291
2027	0	1,672	721	6,648	0	9,041	12,406	802	0	91	13,299	4,258	9,211
2028	0	1,887	793	6,918	0	9,599	12,525	777	0	96	13,389	3,801	9,964
2029	0	1,128	337	7,228	0	8,693	12,555	753	0	92	13,400	4,707	10,822
2030	0	1,273	371	7,581	0	9,226	12,674	728	0	75	13,478	4,252	11,533
2031	0	1,458	523	7,927	0	9,908	12,860	704	0	83	13,647	3,740	12,108
2032	0	1,650	578	8,395	0	10,623	12,842	680	0	78	13,600	2,977	12,528
2033	0	1,866	638	9,146	0	11,649	13,093	656	0	(14)	13,735	2,085	12,798
2034	0	2,107	703	9,317	0	12,127	13,119	634	0	(49)	13,704	1,577	12,986
2035	0	1,869	643	9,684	0	12,196	13,736	614	0	(61)	14,289	2,092	13,215
2036	0	2,112	709	10,377	0	13,198	14,070	595	0	(79)	14,586	1,387	13,354
2037	0	2,385	781	10,932	0	14,097	14,344	578	0	(91)	14,831	734	13,422
2038	0	2,688	859	11,408	0	14,954	14,515	562	0	(104)	14,973	19	13,423
2039	0	1,188	277	11,930	0	13,395	14,596	550	0	(133)	15,013	1,618	13,549
2040	0	1,343	306	12,486	0	14,135	15,002	539	0	(155)	15,385	1,250	13,638
2041	0	2,135	583	13,146	0	15,865	15,236	528	0	(171)	15,593	(272)	13,620
2042	0	2,413	643	13,851	0	16,907	15,441	518	0	34	15,993	(914)	13,565
2043	0	2,105	578	14,603	0	17,286	16,192	508	0	257	16,957	(328)	13,547
2044	0	0	0	0	0	0	0	0	0	0	0	0	0
2045	0	0	0	0	0	0	0	0	0	0	0	0	0
2046	0	0	0	0	0	0	0	0	0	0	0	0	0
2047	0	0	0	0	0	0	0	0	0	0	0	0	0
2048	0	0	0	0	0	0	0	0	0	0	0	0	0
2049	0	0	0	0	0	0	0	0	0	0	0	0	0
2050	0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	49,957	19,211	232,796	0	301,964	345,296	21,117	0	2,258	368,671	66,707	
NPV	0	11,602	5,385	41,785	0	58,772	65,842	5,427	0	1,049	72,319	13,547	

Discount Rate

8.89 %

Benefit/Cost Ratio (Col(12) / Col(7)):

1.23

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Residential Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$'(000)	UTILITY PROGRAM COSTS \$'(000)	INCENTIVES \$'(000)	REVENUE LOSSES \$'(000)	OTHER COSTS \$'(000)	TOTAL COSTS \$'(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$'(000)	AVOIDED T&D BENEFITS \$'(000)	REVENUE GAINS \$'(000)	OTHER BENEFITS \$'(000)	TOTAL BENEFITS \$'(000)	NET BENEFITS \$'(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$'(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	4,332	64,551	4,647	0	73,530	4,498	0	0	38	4,536	(68,994)	(63,363)
2011	0	3,892	54,967	13,732	0	72,591	12,013	2,435	0	47	14,495	(58,096)	(112,363)
2012	0	4,515	62,680	23,816	0	91,011	19,648	4,549	0	74	24,271	(66,739)	(164,059)
2013	0	4,962	67,066	35,831	0	107,859	27,347	7,138	0	2,250	36,735	(71,123)	(214,654)
2014	0	5,280	69,251	50,073	0	124,603	36,838	9,752	0	3,277	49,867	(74,737)	(263,481)
2015	0	5,334	69,222	65,310	0	139,866	51,132	12,478	0	4,529	68,139	(71,728)	(306,517)
2016	0	5,099	63,414	80,286	0	148,799	74,514	15,157	0	6,145	95,816	(52,983)	(335,712)
2017	0	4,162	54,804	95,011	0	153,976	93,666	17,619	0	7,704	118,989	(34,987)	(353,417)
2018	0	3,827	49,051	108,255	0	161,132	109,443	19,495	0	9,213	138,151	(22,981)	(364,098)
2019	0	0	0	117,458	0	117,458	259,080	21,009	0	5,011	285,100	167,642	(292,545)
2020	0	0	0	117,824	0	117,824	255,018	20,406	0	3,315	278,738	160,914	(229,469)
2021	0	0	0	120,390	0	120,390	255,703	19,814	0	3,342	278,858	158,469	(172,422)
2022	0	0	0	123,882	0	123,882	260,098	19,242	0	3,333	282,673	158,790	(119,924)
2023	0	0	0	127,636	0	127,636	261,501	18,686	0	3,192	283,378	155,742	(72,636)
2024	0	0	0	133,304	0	133,304	268,269	18,141	0	3,169	289,579	156,275	(29,059)
2025	0	6,273	64,551	138,089	0	208,914	271,151	17,605	0	3,012	291,769	82,854	(7,841)
2026	0	5,637	54,967	143,639	0	204,243	272,197	17,075	0	2,830	292,101	87,858	12,823
2027	0	6,539	62,680	151,149	0	220,368	274,384	16,547	0	2,489	293,420	73,052	28,601
2028	0	7,186	67,066	157,291	0	231,544	276,465	16,022	0	2,681	295,168	63,624	41,222
2029	0	7,646	69,251	164,331	0	241,229	277,885	15,498	0	2,722	296,104	54,875	51,219
2030	0	7,726	69,222	172,370	0	249,318	280,906	14,976	0	2,373	298,254	48,957	59,407
2031	0	7,384	63,414	180,222	0	251,021	284,876	14,463	0	2,616	301,955	50,934	67,233
2032	0	6,027	54,804	190,868	0	251,699	285,082	13,973	0	2,633	301,689	49,990	74,287
2033	0	5,542	49,051	207,936	0	262,529	290,759	13,513	0	602	304,874	42,345	79,775
2034	0	0	0	211,836	0	211,836	292,314	13,086	0	(56)	305,344	93,507	90,904
2035	0	0	0	220,169	0	220,169	305,521	12,694	0	(207)	318,008	97,840	101,598
2036	0	0	0	235,922	0	235,922	312,886	12,340	0	(518)	324,708	88,785	110,510
2037	0	0	0	248,549	0	248,549	319,293	12,024	0	(669)	330,648	82,099	118,079
2038	0	0	0	259,366	0	259,366	323,095	11,744	0	(885)	333,954	74,589	124,394
2039	0	0	0	271,247	0	271,247	325,404	11,497	0	(1,400)	335,501	64,254	129,390
2040	0	9,086	64,551	283,885	0	357,522	334,698	11,272	0	(1,739)	344,231	(13,290)	128,441
2041	0	8,165	54,967	298,891	0	362,022	340,274	11,057	0	(1,962)	349,368	(12,653)	127,612
2042	0	9,471	62,680	314,909	0	387,060	345,000	10,844	0	2,709	358,552	(28,508)	125,895
2043	0	19,407	67,066	332,012	0	409,486	361,087	10,633	0	7,769	379,489	(29,997)	124,235
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
NOM	0	138,492	1,359,276	5,400,138	0	6,897,905	7,762,042	462,783	0	79,639	8,304,464	1,406,559	
NPV	0	41,121	494,183	1,020,331	0	1,555,635	1,521,317	128,536	0	30,017	1,679,871	124,235	

Discount Rate

8.89 %

Benefit/Cost Ratio (Col(12) / Col(7)) :

1.08

Staff's 1st Data Request #1

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Building Envelope

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	WORTH	PW FIXED	COST BASIS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	FOR
										CHARGES	CHARGES	CHARGES	PROPERTY INSURANCE
2019	164,063	5,096	0	11,450	7,553	2,765	976	6,400	12	34,253	34,253	34,253	160,003
2020	157,651	4,897	0	11,002	5,190	2,650	1,000	6,400	2,094	33,234	30,522	64,774	164,003
2021	149,156	4,633	0	10,409	5,143	2,534	1,025	6,400	1,769	31,915	26,918	91,692	168,103
2022	140,987	4,380	0	9,839	5,083	2,419	1,051	6,400	1,471	30,643	23,736	115,428	172,306
2023	133,116	4,135	0	9,290	5,019	2,304	1,077	6,400	1,191	29,416	20,926	136,354	176,613
2024	125,525	3,899	0	8,760	4,943	2,189	1,104	6,400	934	28,229	18,443	154,796	181,028
2025	118,191	3,672	0	8,248	4,860	2,074	1,132	6,400	695	27,081	16,248	171,044	185,554
2026	111,096	3,451	0	7,753	4,768	1,958	1,160	6,400	476	25,967	14,308	185,353	190,193
2027	104,220	3,238	0	7,273	4,503	1,843	1,189	6,400	440	24,886	12,594	197,946	194,948
2028	97,380	3,025	0	6,796	4,204	1,728	1,219	6,400	439	23,811	11,066	209,013	199,822
2029	90,541	2,813	0	6,319	3,904	1,613	1,249	6,400	440	22,737	9,705	218,717	204,817
2030	83,701	2,600	0	5,841	3,604	1,498	1,281	6,400	439	21,663	8,492	227,209	209,938
2031	76,862	2,388	0	5,364	3,304	1,382	1,313	6,400	440	20,591	7,412	234,621	215,186
2032	70,022	2,175	0	4,887	3,005	1,267	1,345	6,400	439	19,519	6,453	241,074	220,566
2033	63,183	1,963	0	4,409	2,705	1,152	1,379	6,400	440	18,448	5,601	246,676	226,080
2034	56,343	1,750	0	3,932	2,405	1,037	1,414	6,400	439	17,377	4,846	251,521	231,732
2035	49,504	1,538	0	3,455	2,105	922	1,449	6,400	440	16,308	4,176	255,697	237,525
2036	42,664	1,325	0	2,977	1,806	806	1,485	6,400	439	15,239	3,584	259,282	243,463
2037	35,825	1,113	0	2,500	1,506	691	1,522	6,400	440	14,172	3,061	262,343	249,550
2038	28,985	900	0	2,023	1,206	576	1,560	6,400	439	13,105	2,600	264,942	255,789
2039	22,146	688	0	1,546	2,245	461	1,599	6,400	(899)	12,039	2,193	267,136	262,183
2040	16,645	517	0	1,162	3,343	346	1,639	6,400	(2,238)	11,168	1,869	269,004	268,738
2041	12,483	388	0	871	3,161	230	1,680	6,400	(2,238)	10,492	1,612	270,616	275,456
2042	8,322	259	0	581	2,978	115	1,722	6,400	(2,238)	9,817	1,385	272,001	282,343
2043	4,160	129	0	290	2,796	(0)	1,765	6,400	(2,238)	9,142	1,185	273,186	289,401

IN SERVICE COST (\$000)	160,003
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Building Envelope

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPR FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	5,835	5,835	6,400	6,400	5,803	5,803	12	14,935	0	0	0	12	(4,048)
2020	7.22%	11,232	17,067	6,400	12,800	5,803	11,605	2,094	14,935	0	0	0	2,094	(1,953)
2021	6.68%	10,389	27,456	6,400	19,200	5,803	17,408	1,769	14,935	0	0	0	1,769	(184)
2022	6.18%	9,616	37,072	6,400	25,600	5,803	23,211	1,471	14,935	0	0	0	1,471	1,287
2023	5.71%	8,889	45,961	6,400	32,001	5,803	29,014	1,191	14,935	0	0	0	1,191	2,477
2024	5.29%	8,223	54,184	6,400	38,401	5,803	34,816	934	14,935	0	0	0	934	3,411
2025	4.89%	7,605	61,789	6,400	44,801	5,803	40,619	695	14,935	0	0	0	695	4,106
2026	4.52%	7,036	68,825	6,400	51,201	5,803	46,422	476	14,935	0	0	0	476	4,582
2027	4.46%	6,943	75,768	6,400	57,601	5,803	52,225	440	14,935	0	0	0	440	5,022
2028	4.46%	6,941	82,709	6,400	64,001	5,803	58,027	439	14,935	0	0	0	439	5,461
2029	4.46%	6,943	89,652	6,400	70,401	5,803	63,830	440	14,935	0	0	0	440	5,900
2030	4.46%	6,941	96,593	6,400	76,801	5,803	69,633	439	14,935	0	0	0	439	6,340
2031	4.46%	6,943	103,535	6,400	83,201	5,803	75,435	440	14,935	0	0	0	440	6,779
2032	4.46%	6,941	110,476	6,400	89,602	5,803	81,238	439	14,935	0	0	0	439	7,218
2033	4.46%	6,943	117,419	6,400	96,002	5,803	87,041	440	14,935	0	0	0	440	7,658
2034	4.46%	6,941	124,360	6,400	102,402	5,803	92,844	439	14,935	0	0	0	439	8,097
2035	4.46%	6,943	131,303	6,400	108,802	5,803	98,646	440	14,935	0	0	0	440	8,537
2036	4.46%	6,941	138,244	6,400	115,202	5,803	104,449	439	14,935	0	0	0	439	8,976
2037	4.46%	6,943	145,186	6,400	121,602	5,803	110,252	440	14,935	0	0	0	440	9,416
2038	4.46%	6,941	152,127	6,400	128,002	5,803	116,055	439	14,935	0	0	0	439	9,855
2039	2.23%	3,471	155,599	6,400	134,402	5,803	121,857	(899)	14,935	0	0	0	(899)	8,955
2040	0.00%	0	155,599	6,400	140,802	5,803	127,660	(2,238)	14,935	0	0	0	(2,238)	6,717
2041	0.00%	0	155,599	6,400	147,203	5,803	133,463	(2,238)	14,935	0	0	0	(2,238)	4,479
2042	0.00%	0	155,599	6,400	153,603	5,803	139,265	(2,238)	14,935	0	0	0	(2,238)	2,240
2043	0.00%	0	155,599	6,400	160,003	5,803	145,068	(2,238)	14,935	0	0	0	(2,238)	2

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(4,060)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	14,935
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Building Envelope

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END OF YEAR									
NET									
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	5,835	12	153,603	6,400	(4,048)	164,063	157,651	160,857
2020	7.22%	11,232	2,094	147,203	12,800	(1,953)	157,651	149,156	153,403
2021	6.68%	10,389	1,769	140,802	19,200	(184)	149,156	140,987	145,071
2022	6.18%	9,616	1,471	134,402	25,600	1,287	140,987	133,116	137,051
2023	5.71%	8,889	1,191	128,002	32,001	2,477	133,116	125,525	129,320
2024	5.29%	8,223	934	121,602	38,401	3,411	125,525	118,191	121,858
2025	4.89%	7,605	695	115,202	44,801	4,106	118,191	111,096	114,644
2026	4.52%	7,036	476	108,802	51,201	4,582	111,096	104,220	107,658
2027	4.46%	6,943	440	102,402	57,601	5,022	104,220	97,380	100,800
2028	4.46%	6,941	439	96,002	64,001	5,461	97,380	90,541	93,961
2029	4.46%	6,943	440	89,602	70,401	5,900	90,541	83,701	87,121
2030	4.46%	6,941	439	83,201	76,801	6,340	83,701	76,862	80,282
2031	4.46%	6,943	440	76,801	83,201	6,779	76,862	70,022	73,442
2032	4.46%	6,941	439	70,401	89,602	7,218	70,022	63,183	66,603
2033	4.46%	6,943	440	64,001	96,002	7,658	63,183	56,343	59,763
2034	4.46%	6,941	439	57,601	102,402	8,097	56,343	49,504	52,923
2035	4.46%	6,943	440	51,201	108,802	8,537	49,504	42,664	46,084
2036	4.46%	6,941	439	44,801	115,202	8,976	42,664	35,825	39,244
2037	4.46%	6,943	440	38,401	121,602	9,416	35,825	28,985	32,405
2038	4.46%	6,941	439	32,001	128,002	9,855	28,985	22,146	25,565
2039	2.23%	3,471	(899)	25,600	134,402	8,955	22,146	16,645	19,395
2040	0.00%	0	(2,238)	19,200	140,802	6,717	16,645	12,483	14,564
2041	0.00%	0	(2,238)	12,800	147,203	4,479	12,483	8,322	10,402
2042	0.00%	0	(2,238)	6,400	153,603	2,240	8,322	4,160	6,241
2043	0.00%	0	(2,238)	(0)	160,003	2	4,160	-2	2,079

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	136,431	136,431	136,431
EQUITY AFUDC	14,935		
DEBT AFUDC	8,637	8,637	
CPI			19,163
TOTAL	160,003	145,068	155,594

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Residential Building Envelope**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	293	16,210	0	16,503	0	0	527	3	530	(15,973)	(14,670)
2011	0	1,082	22,173	0	23,256	0	269	2,034	8	2,311	(20,944)	(32,335)
2012	0	1,346	28,834	0	30,180	0	851	4,292	17	5,159	(25,021)	(51,716)
2013	0	1,632	37,219	0	38,851	0	1,604	6,811	570	8,985	(29,866)	(72,962)
2014	0	1,898	44,274	0	46,172	0	2,427	9,997	902	13,327	(32,845)	(94,421)
2015	0	2,115	48,975	0	51,091	0	3,346	14,741	1,331	19,418	(31,672)	(113,424)
2016	0	1,974	53,489	0	55,462	0	4,326	22,525	1,901	28,751	(26,711)	(128,142)
2017	0	2,012	56,768	0	58,780	0	5,274	29,656	2,502	37,432	(21,348)	(138,945)
2018	0	2,022	58,512	0	60,534	0	6,191	36,381	3,129	45,701	(14,834)	(145,839)
2019	0	0	0	0	0	41,142	6,933	43,750	1,839	93,664	93,664	(105,862)
2020	0	129	16,283	0	16,412	38,244	6,734	45,579	1,371	91,927	75,515	(76,261)
2021	0	813	19,635	0	20,448	36,701	6,538	47,237	1,357	91,832	71,384	(50,563)
2022	0	1,019	26,276	0	27,295	36,477	6,349	48,909	1,440	93,176	65,881	(28,782)
2023	0	1,247	35,124	0	36,371	37,132	6,166	48,647	1,380	93,325	56,954	(11,489)
2024	0	1,452	42,440	0	43,892	37,546	5,988	50,549	1,457	95,540	51,648	2,913
2025	0	1,608	47,080	0	48,688	37,477	5,813	51,661	1,432	96,382	47,694	15,127
2026	0	1,325	51,939	0	53,264	37,732	5,641	51,772	1,385	96,530	43,267	25,303
2027	0	1,301	55,810	0	57,111	38,035	5,469	52,170	1,329	97,004	39,893	33,919
2028	0	1,341	59,865	0	61,207	37,857	5,299	53,001	1,442	97,598	36,391	41,138
2029	0	0	0	0	0	38,851	5,129	52,654	1,551	98,185	98,185	59,025
2030	0	454	26,412	0	26,866	38,841	4,959	53,720	1,485	99,005	72,139	71,094
2031	0	1,554	35,019	0	36,573	38,550	4,791	55,409	1,627	100,376	63,803	80,897
2032	0	1,923	45,550	0	47,473	39,757	4,627	54,443	1,707	100,534	53,062	88,385
2033	0	2,316	58,835	0	61,151	39,661	4,469	56,432	1,128	101,690	40,539	93,639
2034	0	2,665	69,875	0	72,540	41,506	4,322	55,337	1,002	102,167	29,628	97,165
2035	0	2,925	77,003	0	79,928	42,133	4,185	58,976	1,034	106,327	26,399	100,051
2036	0	2,591	83,787	0	86,378	41,739	4,061	61,872	1,019	108,692	22,314	102,290
2037	0	2,549	88,531	0	91,080	42,631	3,950	63,253	1,069	110,903	19,823	104,118
2038	0	2,461	90,762	0	93,223	41,422	3,852	65,827	1,109	112,210	18,987	105,725
2039	0	0	0	0	0	40,702	3,768	67,466	1,055	112,991	112,991	114,511
2040	0	243	26,876	0	27,119	42,467	3,694	68,826	1,067	116,053	88,935	120,862
2041	0	1,613	33,857	0	35,470	42,053	3,624	71,251	1,118	118,045	82,575	126,277
2042	0	2,032	45,230	0	47,261	41,316	3,554	73,797	2,732	121,399	74,137	130,743
2043	0	2,502	60,311	0	62,813	41,441	3,485	78,900	4,481	128,307	65,494	134,365
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	50,437	1,462,954	0	1,513,392	991,412	147,685	1,558,400	47,979	2,745,476	1,232,084	
NPV	0	14,285	393,986	0	408,271	178,921	39,194	312,221	12,300	542,637	134,365	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) :

1.33

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Residential Building Envelope**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILLS \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O&M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	849	0	7,476	0	8,325	16,210	0	0	16,210	(7,885)	(7,242)
2011	3,079	0	10,551	0	13,630	22,173	0	0	22,173	(8,543)	(14,447)
2012	6,394	0	13,217	0	19,611	28,834	0	0	28,834	(9,223)	(21,592)
2013	10,816	0	16,377	0	27,193	37,219	0	0	37,219	(10,026)	(28,724)
2014	16,636	0	18,851	0	35,487	44,274	0	0	44,274	(8,788)	(34,465)
2015	23,461	0	20,287	0	43,747	48,975	0	0	48,975	(5,228)	(37,602)
2016	30,894	0	21,435	0	52,329	53,489	0	0	53,489	(1,160)	(38,241)
2017	39,188	0	22,030	0	61,218	56,768	0	0	56,768	4,450	(35,989)
2018	47,765	0	21,757	0	69,523	58,512	0	0	58,512	11,011	(30,871)
2019	53,407	0	0	0	53,407	0	0	0	0	53,407	(8,076)
2020	53,574	0	5,070	0	58,644	16,283	0	0	16,283	42,361	8,529
2021	54,741	0	6,043	0	60,784	19,635	0	0	19,635	41,149	23,342
2022	56,329	0	7,881	0	64,210	26,276	0	0	26,276	37,935	35,884
2023	58,036	0	10,266	0	68,301	35,124	0	0	35,124	33,177	45,957
2024	60,613	0	12,095	0	72,708	42,440	0	0	42,440	30,268	54,397
2025	62,789	0	13,090	0	75,879	47,080	0	0	47,080	28,798	61,772
2026	65,312	0	14,042	0	79,354	51,939	0	0	51,939	27,414	68,220
2027	68,727	0	14,716	0	83,443	55,810	0	0	55,810	27,632	74,188
2028	71,520	0	15,394	0	86,914	59,865	0	0	59,865	27,049	79,554
2029	74,721	0	0	0	74,721	0	0	0	0	74,721	93,166
2030	78,376	0	7,435	0	85,810	26,412	0	0	26,412	59,399	103,104
2031	81,946	0	10,137	0	92,083	35,019	0	0	35,019	57,064	111,872
2032	86,787	0	12,693	0	99,480	45,550	0	0	45,550	53,930	119,482
2033	94,548	0	15,728	0	110,275	58,835	0	0	58,835	51,440	126,148
2034	96,321	0	18,063	0	114,384	69,875	0	0	69,875	44,509	131,446
2035	100,110	0	19,350	0	119,460	77,003	0	0	77,003	42,457	136,087
2036	107,273	0	20,347	0	127,619	83,787	0	0	83,787	43,833	140,487
2037	113,014	0	20,792	0	133,805	88,531	0	0	88,531	45,275	144,660
2038	117,932	0	20,378	0	138,310	90,762	0	0	90,762	47,548	148,686
2039	123,335	0	0	0	123,335	0	0	0	0	123,335	158,276
2040	129,081	0	5,112	0	134,193	26,876	0	0	26,876	107,317	165,940
2041	135,904	0	6,458	0	142,362	33,857	0	0	33,857	108,504	173,056
2042	143,188	0	8,405	0	151,593	45,230	0	0	45,230	106,363	179,462
2043	150,964	0	10,915	0	161,879	60,311	0	0	60,311	101,568	185,080
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
NOM	2,417,625	0	426,389	0	2,844,015	1,462,954	0	0	1,462,954	1,381,060	
NPV	439,230	0	139,836	0	579,066	393,986	0	0	393,986	185,080	

In Service of Gen Unit: 2019
Discount Rate : 8.89 %
Benefit/Cost Ratio (Col(6) / Col(10)) 1.47

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST

PSC FORM CE 2.5

PROGRAM METHOD SELECTED: REV_REQ

PAGE 1 OF 1

PROGRAM NAME: Residential Building Envelope

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	293	7,476	645	0	8,414	527	0	0	3	530	(7,884)	(7,241)
2011	0	1,082	10,551	2,340	0	13,974	2,034	269	0	8	2,311	(11,662)	(17,077)
2012	0	1,346	13,217	4,859	0	19,422	4,292	851	0	17	5,159	(14,263)	(28,125)
2013	0	1,632	16,377	8,220	0	26,230	6,811	1,604	0	570	8,985	(17,244)	(40,393)
2014	0	1,898	18,851	12,643	0	33,392	9,997	2,427	0	902	13,327	(20,065)	(53,502)
2015	0	2,115	20,287	17,830	0	40,232	14,741	3,346	0	1,331	19,418	(20,814)	(65,990)
2016	0	1,974	21,435	23,479	0	46,888	22,525	4,326	0	1,901	28,751	(18,137)	(75,984)
2017	0	2,012	22,030	29,783	0	53,825	29,656	5,274	0	2,502	37,432	(16,393)	(84,279)
2018	0	2,022	21,757	36,302	0	60,082	36,381	6,191	0	3,129	45,701	(14,381)	(90,963)
2019	0	0	0	40,590	0	40,590	84,892	6,933	0	1,839	93,664	53,074	(68,310)
2020	0	129	5,070	40,716	0	45,915	83,823	6,734	0	1,371	91,927	46,012	(50,274)
2021	0	813	6,043	41,603	0	48,459	83,937	6,538	0	1,357	91,832	43,373	(34,660)
2022	0	1,019	7,881	42,810	0	51,710	85,387	6,349	0	1,440	93,176	41,465	(20,951)
2023	0	1,247	10,266	44,107	0	55,619	85,779	6,166	0	1,380	93,325	37,705	(9,502)
2024	0	1,452	12,095	46,066	0	59,613	88,096	5,988	0	1,457	95,540	35,928	516
2025	0	1,608	13,090	47,719	0	62,417	89,137	5,813	0	1,432	96,382	33,965	9,214
2026	0	1,325	14,042	49,637	0	65,003	89,504	5,641	0	1,385	96,530	31,527	16,629
2027	0	1,301	14,716	52,232	0	68,249	90,206	5,469	0	1,329	97,004	28,755	22,840
2028	0	1,341	15,394	54,355	0	71,091	90,858	5,299	0	1,442	97,598	26,507	28,098
2029	0	0	0	56,788	0	56,788	91,505	5,129	0	1,551	98,185	41,397	35,639
2030	0	454	7,435	59,566	0	67,454	92,561	4,959	0	1,485	99,005	31,550	40,918
2031	0	1,554	10,137	62,279	0	73,970	93,959	4,791	0	1,627	100,376	26,406	44,975
2032	0	1,923	12,693	65,958	0	80,574	94,200	4,627	0	1,707	100,534	19,960	47,792
2033	0	2,316	15,728	71,856	0	89,900	96,093	4,469	0	1,128	101,690	11,790	49,320
2034	0	2,665	18,063	73,204	0	93,931	96,844	4,322	0	1,002	102,167	8,236	50,300
2035	0	2,925	19,350	76,083	0	98,359	101,308	4,185	0	1,034	106,327	7,969	51,171
2036	0	2,591	20,347	81,527	0	104,465	103,612	4,061	0	1,019	108,692	4,227	51,395
2037	0	2,549	20,792	85,891	0	109,231	105,884	3,950	0	1,069	110,903	1,672	51,750
2038	0	2,461	20,378	89,629	0	112,468	107,249	3,852	0	1,109	112,210	(258)	51,728
2039	0	0	0	93,734	0	93,734	108,168	3,768	0	1,055	112,991	19,257	53,225
2040	0	243	5,112	98,101	0	103,457	111,292	3,694	0	1,067	116,053	12,597	54,125
2041	0	1,613	6,458	103,287	0	111,357	113,303	3,624	0	1,118	118,045	6,688	54,563
2042	0	2,032	8,405	108,823	0	119,259	115,113	3,554	0	2,732	121,399	2,139	54,692
2043	0	2,502	10,915	114,733	0	128,149	120,341	3,485	0	4,481	128,307	157	54,701
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	50,437	426,389	1,837,395	0	2,314,222	2,549,812	147,685	0	47,979	2,745,476	431,254	
NPV	0	14,285	139,836	333,815	0	487,936	491,142	39,194	0	12,300	542,637	54,701	

Discount Rate 8.89 %
 Benefit/Cost Ratio (Col(12) / Col(7)) : 1.11

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Duct System Testing and Repair

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	105,424	3,275	0	7,357	4,854	1,777	627	4,113	8	22,010	22,010	22,010	102,815
2020	101,303	3,147	0	7,070	3,335	1,703	643	4,113	1,346	21,356	19,613	41,623	105,385
2021	95,845	2,977	0	6,689	3,305	1,629	659	4,113	1,137	20,508	17,297	58,920	108,020
2022	90,596	2,814	0	6,322	3,266	1,555	675	4,113	945	19,691	15,252	74,172	110,720
2023	85,538	2,657	0	5,969	3,225	1,481	692	4,113	765	18,902	13,446	87,618	113,488
2024	80,660	2,506	0	5,629	3,176	1,407	710	4,113	600	18,140	11,851	99,469	116,326
2025	75,948	2,359	0	5,300	3,123	1,332	727	4,113	447	17,401	10,441	109,910	119,234
2026	71,388	2,218	0	4,982	3,064	1,258	746	4,113	306	16,686	9,194	119,104	122,215
2027	66,970	2,080	0	4,674	2,894	1,184	764	4,113	283	15,991	8,092	127,197	125,270
2028	62,575	1,944	0	4,367	2,701	1,110	783	4,113	282	15,301	7,111	134,308	128,402
2029	58,180	1,807	0	4,060	2,508	1,036	803	4,113	283	14,610	6,236	140,544	131,612
2030	53,785	1,671	0	3,754	2,316	962	823	4,113	282	13,920	5,457	146,000	134,902
2031	49,390	1,534	0	3,447	2,123	888	843	4,113	283	13,231	4,763	150,763	138,275
2032	44,995	1,398	0	3,140	1,931	814	865	4,113	282	12,542	4,147	154,910	141,731
2033	40,600	1,261	0	2,833	1,738	740	886	4,113	283	11,854	3,599	158,509	145,275
2034	36,205	1,125	0	2,527	1,546	666	908	4,113	282	11,166	3,114	161,623	148,907
2035	31,810	988	0	2,220	1,353	592	931	4,113	283	10,479	2,684	164,306	152,629
2036	27,415	852	0	1,913	1,160	518	954	4,113	282	9,793	2,303	166,610	156,445
2037	23,020	715	0	1,607	967	444	978	4,113	283	9,107	1,967	168,577	160,356
2038	18,625	579	0	1,300	775	370	1,003	4,113	282	8,421	1,670	170,247	164,365
2039	14,230	442	0	993	1,443	296	1,028	4,113	(578)	7,736	1,409	171,656	168,474
2040	10,696	332	0	746	2,148	222	1,053	4,113	(1,438)	7,177	1,201	172,857	172,686
2041	8,022	249	0	560	2,031	148	1,080	4,113	(1,438)	6,742	1,036	173,893	177,903
2042	5,347	166	0	373	1,914	74	1,107	4,113	(1,438)	6,308	890	174,783	181,428
2043	2,673	83	0	187	1,797	0	1,134	4,113	(1,438)	5,875	761	175,544	185,964

IN SERVICE COST (\$000)	102,815
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Duct System Testing and Repair

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	3,749	3,749	4,113	4,113	3,729	3,729	8	9,597	0	0	0	8	(2,601)
2020	7.22%	7,218	10,967	4,113	8,225	3,729	7,457	1,346	9,597	0	0	0	1,346	(1,255)
2021	6.68%	6,676	17,643	4,113	12,338	3,729	11,186	1,137	9,597	0	0	0	1,137	(118)
2022	6.18%	6,179	23,822	4,113	16,450	3,729	14,915	945	9,597	0	0	0	945	827
2023	5.71%	5,712	29,534	4,113	20,563	3,729	18,644	765	9,597	0	0	0	765	1,592
2024	5.29%	5,284	34,818	4,113	24,676	3,729	22,372	600	9,597	0	0	0	600	2,192
2025	4.89%	4,887	39,705	4,113	28,788	3,729	26,101	447	9,597	0	0	0	447	2,639
2026	4.52%	4,521	44,226	4,113	32,901	3,729	29,830	306	9,597	0	0	0	306	2,944
2027	4.46%	4,461	48,687	4,113	37,013	3,729	33,559	283	9,597	0	0	0	283	3,227
2028	4.46%	4,460	53,147	4,113	41,126	3,729	37,287	282	9,597	0	0	0	282	3,509
2029	4.46%	4,461	57,609	4,113	45,239	3,729	41,016	283	9,597	0	0	0	283	3,791
2030	4.46%	4,460	62,069	4,113	49,351	3,729	44,745	282	9,597	0	0	0	282	4,074
2031	4.46%	4,461	66,530	4,113	53,464	3,729	48,473	283	9,597	0	0	0	283	4,356
2032	4.46%	4,460	70,990	4,113	57,576	3,729	52,202	282	9,597	0	0	0	282	4,638
2033	4.46%	4,461	75,451	4,113	61,689	3,729	55,931	283	9,597	0	0	0	283	4,921
2034	4.46%	4,460	79,911	4,113	65,801	3,729	59,660	282	9,597	0	0	0	282	5,203
2035	4.46%	4,461	84,373	4,113	69,914	3,729	63,388	283	9,597	0	0	0	283	5,486
2036	4.46%	4,460	88,833	4,113	74,027	3,729	67,117	282	9,597	0	0	0	282	5,768
2037	4.46%	4,461	93,294	4,113	78,139	3,729	70,846	283	9,597	0	0	0	283	6,050
2038	4.46%	4,460	97,754	4,113	82,252	3,729	74,574	282	9,597	0	0	0	282	6,332
2039	2.23%	2,231	99,985	4,113	86,364	3,729	78,303	(578)	9,597	0	0	0	(578)	5,755
2040	0.00%	0	99,985	4,113	90,477	3,729	82,032	(1,438)	9,597	0	0	0	(1,438)	4,316
2041	0.00%	0	99,985	4,113	94,590	3,729	85,761	(1,438)	9,597	0	0	0	(1,438)	2,878
2042	0.00%	0	99,985	4,113	98,702	3,729	89,489	(1,438)	9,597	0	0	0	(1,438)	1,440
2043	0.00%	0	99,985	4,113	102,815	3,729	93,218	(1,438)	9,597	0	0	0	(1,438)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,609)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	9,597
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

page 4b

PSC FORM CE 1.1A
PAGE 2b OF 2

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Duct System Testing and Repair

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END OF YEAR									
NET									
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	3,749	8	98,702	4,113	(2,601)	105,424	101,303	103,364
2020	7.22%	7,218	1,346	94,590	8,225	(1,255)	101,303	95,845	98,574
2021	6.68%	6,676	1,137	90,477	12,338	(118)	95,845	90,596	93,220
2022	6.18%	6,179	945	86,364	16,450	827	90,596	85,538	88,067
2023	5.71%	5,712	765	82,252	20,563	1,592	85,538	80,660	83,099
2024	5.29%	5,284	600	78,139	24,676	2,192	80,660	75,948	78,304
2025	4.89%	4,887	447	74,027	28,788	2,639	75,948	71,388	73,668
2026	4.52%	4,521	306	69,914	32,901	2,944	71,388	66,970	69,179
2027	4.46%	4,461	283	65,801	37,013	3,227	66,970	62,575	64,772
2028	4.46%	4,460	282	61,689	41,126	3,509	62,575	58,180	60,377
2029	4.46%	4,461	283	57,576	45,239	3,791	58,180	53,785	55,982
2030	4.46%	4,460	282	53,464	49,351	4,074	53,785	49,390	51,587
2031	4.46%	4,461	283	49,351	53,464	4,356	49,390	44,995	47,192
2032	4.46%	4,460	282	45,239	57,576	4,638	44,995	40,600	42,798
2033	4.46%	4,461	283	41,126	61,689	4,921	40,600	36,205	38,403
2034	4.46%	4,460	282	37,013	65,801	5,203	36,205	31,810	34,008
2035	4.46%	4,461	283	32,901	69,914	5,486	31,810	27,415	29,613
2036	4.46%	4,460	282	28,788	74,027	5,768	27,415	23,020	25,218
2037	4.46%	4,461	283	24,676	78,139	6,050	23,020	18,625	20,823
2038	4.46%	4,460	282	20,563	82,252	6,332	18,625	14,230	16,428
2039	2.23%	2,231	(578)	16,450	86,364	5,755	14,230	10,696	12,463
2040	0.00%	0	(1,438)	12,338	90,477	4,316	10,696	8,022	9,359
2041	0.00%	0	(1,438)	8,225	94,590	2,878	8,022	5,347	6,684
2042	0.00%	0	(1,438)	4,113	98,702	1,440	5,347	2,673	4,010
2043	0.00%	0	(1,438)	0	102,815	1	2,673	-1	1,336

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	87,668	87,668	87,668
EQUITY AFUDC	9,597		
DEBT AFUDC	5,550	5,550	
CPI			12,314
TOTAL	102,815	93,218	99,982

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Residential Duct System Testing and Repair**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILLS \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O&M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	550	0	3,362	0	3,912	5,423	0	0	5,423	(1,511)	(1,388)
2011	1,851	0	4,241	0	6,092	7,014	0	0	7,014	(922)	(2,165)
2012	3,761	0	5,947	0	9,708	10,079	0	0	10,079	(371)	(2,453)
2013	6,372	0	7,036	0	13,407	12,224	0	0	12,224	1,183	(1,611)
2014	9,633	0	7,527	0	17,160	13,405	0	0	13,405	3,755	843
2015	13,262	0	7,839	0	21,101	14,302	0	0	14,302	6,800	4,922
2016	17,126	0	8,283	0	25,409	15,488	0	0	15,488	9,921	10,389
2017	21,352	0	7,583	0	28,935	14,518	0	0	14,518	14,417	17,685
2018	25,588	0	6,997	0	32,586	13,714	0	0	13,714	18,871	26,456
2019	28,402	0	0	0	28,402	0	0	0	0	28,402	38,578
2020	28,490	0	0	0	28,490	0	0	0	0	28,490	49,746
2021	29,111	0	0	0	29,111	0	0	0	0	29,111	60,226
2022	29,955	0	0	0	29,955	0	0	0	0	29,955	70,129
2023	30,863	0	0	0	30,863	0	0	0	0	30,863	79,500
2024	32,234	0	0	0	32,234	0	0	0	0	32,234	88,488
2025	33,391	0	0	0	33,391	0	0	0	0	33,391	97,039
2026	34,733	0	0	0	34,733	0	0	0	0	34,733	105,208
2027	36,548	0	0	0	36,548	0	0	0	0	36,548	113,102
2028	38,034	0	0	0	38,034	0	0	0	0	38,034	120,647
2029	39,736	0	0	0	39,736	0	0	0	0	39,736	127,886
2030	41,680	0	0	0	41,680	0	0	0	0	41,680	134,859
2031	43,579	0	0	0	43,579	0	0	0	0	43,579	141,555
2032	46,153	0	0	0	46,153	0	0	0	0	46,153	148,068
2033	50,280	0	0	0	50,280	0	0	0	0	50,280	154,584
2034	51,223	0	0	0	51,223	0	0	0	0	51,223	160,680
2035	53,238	0	3,362	0	56,600	10,054	0	0	10,054	46,545	165,768
2036	57,047	0	4,241	0	61,289	13,003	0	0	13,003	48,286	170,615
2037	60,100	0	5,947	0	66,047	18,686	0	0	18,686	47,361	174,981
2038	62,716	0	7,036	0	69,752	22,663	0	0	22,663	47,089	178,968
2039	65,589	0	7,527	0	73,116	24,852	0	0	24,852	48,264	182,721
2040	68,645	0	7,839	0	76,484	26,514	0	0	26,514	49,970	186,289
2041	72,273	0	8,283	0	80,556	28,714	0	0	28,714	51,843	189,689
2042	76,147	0	7,583	0	83,730	26,916	0	0	26,916	56,814	193,111
2043	80,282	0	6,997	0	87,279	25,426	0	0	25,426	61,853	196,532
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
NOM	1,289,942	0	117,631	0	1,407,573	302,994	0	0	302,994	1,104,579	
NPV	236,287	0	42,020	0	278,307	81,774	0	0	81,774	196,532	

In Service of Gen Unit: 2019
Discount Rate: 8.89 %
Benefit/Cost Ratio (Col(6) / Col(10)) **3.40**

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Residential Duct System Testing and Repair

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	1,744	3,362	418	0	5,524	407	0	0	3	410	(5,114)	(5,696)
2011	0	2,255	4,241	1,406	0	7,903	1,236	245	0	5	1,486	(6,418)	(10,109)
2012	0	3,241	5,947	2,859	0	12,047	2,370	556	0	9	2,936	(9,111)	(17,167)
2013	0	3,931	7,036	4,842	0	15,809	3,719	1,036	0	306	5,061	(10,749)	(24,813)
2014	0	4,311	7,527	7,321	0	19,159	5,422	1,570	0	482	7,475	(11,684)	(32,446)
2015	0	4,599	7,839	10,079	0	22,518	7,956	2,145	0	705	10,806	(11,712)	(39,473)
2016	0	4,981	8,283	13,016	0	26,280	12,209	2,749	0	1,007	15,965	(10,315)	(48,157)
2017	0	4,669	7,583	16,228	0	28,479	16,161	3,386	0	1,329	20,876	(7,603)	(49,005)
2018	0	4,410	6,997	19,447	0	30,855	19,742	3,964	0	1,662	25,368	(5,487)	(51,555)
2019	0	0	0	21,585	0	21,585	50,254	4,452	0	808	55,514	33,928	(37,073)
2020	0	0	0	21,653	0	21,653	49,321	4,324	0	444	54,089	32,436	(24,359)
2021	0	0	0	22,124	0	22,124	49,348	4,198	0	431	53,977	31,853	(12,892)
2022	0	0	0	22,766	0	22,766	50,141	4,077	0	401	54,619	31,853	(2,361)
2023	0	0	0	23,456	0	23,456	50,441	3,959	0	354	54,754	31,299	7,142
2024	0	0	0	24,498	0	24,498	51,711	3,845	0	318	55,874	31,376	15,891
2025	0	0	0	25,377	0	25,377	52,236	3,733	0	252	56,221	30,844	23,790
2026	0	0	0	26,397	0	26,397	52,445	3,622	0	195	56,262	29,865	30,814
2027	0	0	0	27,777	0	27,777	52,866	3,512	0	92	56,470	28,693	37,012
2028	0	0	0	28,906	0	28,906	53,237	3,402	0	95	56,734	27,829	42,532
2029	0	0	0	30,199	0	30,199	53,562	3,293	0	53	56,908	26,709	47,398
2030	0	0	0	31,677	0	31,677	54,117	3,184	0	(58)	57,242	25,566	51,675
2031	0	0	0	33,120	0	33,120	54,828	3,076	0	(55)	57,849	24,729	55,475
2032	0	0	0	35,076	0	35,076	54,943	2,971	0	(100)	57,814	22,738	58,683
2033	0	0	0	38,213	0	38,213	55,980	2,871	0	(568)	58,283	20,070	61,284
2034	0	0	0	38,929	0	38,929	56,384	2,776	0	(758)	58,402	19,473	63,602
2035	0	3,233	3,362	40,461	0	47,056	58,852	2,688	0	(852)	60,688	13,632	65,092
2036	0	4,182	4,241	43,356	0	51,779	60,180	2,608	0	(983)	61,805	10,026	66,098
2037	0	6,009	5,947	45,676	0	57,632	61,415	2,537	0	(1,084)	62,867	5,236	66,581
2038	0	7,288	7,036	47,664	0	61,988	62,036	2,474	0	(1,203)	63,306	1,318	66,693
2039	0	7,992	7,527	49,848	0	65,367	62,414	2,420	0	(1,388)	63,445	(1,921)	66,543
2040	0	8,527	7,839	52,170	0	68,536	64,235	2,372	0	(1,541)	65,066	(3,469)	66,295
2041	0	9,234	8,283	54,928	0	72,445	65,233	2,327	0	(1,676)	65,884	(6,560)	65,865
2042	0	8,656	7,583	57,871	0	74,110	66,054	2,282	0	(817)	67,519	(6,591)	65,468
2043	0	8,177	6,997	61,014	0	76,188	69,019	2,238	0	113	71,369	(4,819)	65,202
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOM.	0	97,440	117,631	980,356	0	1,195,427	1,480,473	94,893	0	(2,019)	1,573,347	377,920	
NPV	0	26,298	42,020	179,578	0	247,896	284,702	25,225	0	3,171	313,098	65,202	

Discount Rate 8.89 %
 Benefit/Cost Ratio (Col(12) / Col(7)) : 1.26

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Load Management Program

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	FIXED	PW FIXED	COST BASIS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	76,844	2,387	0	5,363	3,538	1,295	457	2,998	6	16,043	16,043	16,043	74,942
2020	73,840	2,294	0	5,153	2,431	1,241	469	2,998	981	15,566	14,296	30,339	76,815
2021	69,861	2,170	0	4,875	2,409	1,187	480	2,998	829	14,948	12,608	42,947	78,736
2022	66,035	2,051	0	4,608	2,381	1,133	492	2,998	689	14,353	11,117	54,064	80,704
2023	62,349	1,937	0	4,351	2,351	1,079	505	2,998	558	13,778	9,801	63,865	82,722
2024	58,793	1,826	0	4,103	2,315	1,025	517	2,998	437	13,222	8,638	72,503	84,790
2025	55,358	1,720	0	3,863	2,276	971	530	2,998	326	12,684	7,610	80,113	86,910
2026	52,035	1,616	0	3,631	2,233	917	543	2,998	223	12,162	6,702	86,815	89,082
2027	48,814	1,516	0	3,407	2,109	863	557	2,998	206	11,656	5,899	92,714	91,309
2028	45,611	1,417	0	3,183	1,969	809	571	2,998	206	11,153	5,183	97,897	93,592
2029	42,407	1,317	0	2,960	1,828	755	585	2,998	206	10,649	4,545	102,442	95,932
2030	39,204	1,218	0	2,736	1,688	701	600	2,998	206	10,147	3,977	106,420	98,330
2031	36,000	1,118	0	2,512	1,548	647	615	2,998	206	9,644	3,472	109,892	100,788
2032	32,797	1,019	0	2,289	1,407	594	630	2,998	206	9,142	3,022	112,914	103,308
2033	29,594	919	0	2,065	1,267	540	646	2,998	206	8,640	2,623	115,537	105,891
2034	26,390	820	0	1,842	1,127	486	662	2,998	206	8,139	2,270	117,807	108,538
2035	23,187	720	0	1,618	986	432	679	2,998	206	7,638	1,956	119,763	111,252
2036	19,983	621	0	1,395	846	378	696	2,998	206	7,138	1,679	121,442	114,033
2037	16,780	521	0	1,171	705	324	713	2,998	206	6,638	1,434	122,876	116,884
2038	13,576	422	0	947	565	270	731	2,998	206	6,138	1,218	124,093	119,806
2039	10,373	322	0	724	1,052	216	749	2,998	(421)	5,639	1,027	125,120	122,801
2040	7,196	242	0	544	1,566	162	768	2,998	(1,048)	5,231	875	125,996	125,871
2041	5,847	182	0	408	1,480	108	787	2,998	(1,048)	4,914	755	126,751	129,018
2042	3,898	121	0	272	1,395	54	807	2,998	(1,048)	4,598	649	127,400	132,243
2043	1,948	61	0	136	1,310	0	827	2,998	(1,048)	4,282	555	127,955	135,549

IN SERVICE COST (\$000)	74,942
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST
DEBT	44%	7.03
P/S	0%	0.00
C/S	56%	12.50

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Load Management Program

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPR FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	2,733	2,733	2,998	2,998	2,718	2,718	6	6,995	0	0	0	6	(1,896)
2020	7.22%	5,261	7,994	2,998	5,995	2,718	5,436	981	6,995	0	0	0	981	(915)
2021	6.68%	4,866	12,860	2,998	8,993	2,718	8,154	829	6,995	0	0	0	829	(86)
2022	6.18%	4,504	17,364	2,998	11,991	2,718	10,871	689	6,995	0	0	0	689	603
2023	5.71%	4,163	21,527	2,998	14,988	2,718	13,589	558	6,995	0	0	0	558	1,160
2024	5.29%	3,852	25,379	2,998	17,986	2,718	16,307	437	6,995	0	0	0	437	1,598
2025	4.89%	3,562	28,941	2,998	20,984	2,718	19,025	326	6,995	0	0	0	326	1,923
2026	4.52%	3,295	32,236	2,998	23,981	2,718	21,743	223	6,995	0	0	0	223	2,146
2027	4.46%	3,252	35,488	2,998	26,979	2,718	24,461	206	6,995	0	0	0	206	2,352
2028	4.46%	3,251	38,739	2,998	29,977	2,718	27,179	206	6,995	0	0	0	206	2,558
2029	4.46%	3,252	41,991	2,998	32,974	2,718	29,897	206	6,995	0	0	0	206	2,764
2030	4.46%	3,251	45,242	2,998	35,972	2,718	32,614	206	6,995	0	0	0	206	2,969
2031	4.46%	3,252	48,494	2,998	38,970	2,718	35,332	206	6,995	0	0	0	206	3,175
2032	4.46%	3,251	51,745	2,998	41,967	2,718	38,050	206	6,995	0	0	0	206	3,381
2033	4.46%	3,252	54,996	2,998	44,965	2,718	40,768	206	6,995	0	0	0	206	3,587
2034	4.46%	3,251	58,248	2,998	47,963	2,718	43,486	206	6,995	0	0	0	206	3,793
2035	4.46%	3,252	61,499	2,998	50,960	2,718	46,204	206	6,995	0	0	0	206	3,998
2036	4.46%	3,251	64,750	2,998	53,958	2,718	48,922	206	6,995	0	0	0	206	4,204
2037	4.46%	3,252	68,002	2,998	56,956	2,718	51,640	206	6,995	0	0	0	206	4,410
2038	4.46%	3,251	71,253	2,998	59,953	2,718	54,357	206	6,995	0	0	0	206	4,616
2039	2.23%	1,626	72,879	2,998	62,951	2,718	57,075	(421)	6,995	0	0	0	(421)	4,195
2040	0.00%	0	72,879	2,998	65,949	2,718	59,793	(1,048)	6,995	0	0	0	(1,048)	3,146
2041	0.00%	0	72,879	2,998	68,946	2,718	62,511	(1,048)	6,995	0	0	0	(1,048)	2,098
2042	0.00%	0	72,879	2,998	71,944	2,718	65,229	(1,048)	6,995	0	0	0	(1,048)	1,049
2043	0.00%	0	72,879	2,998	74,942	2,718	67,947	(1,048)	6,995	0	0	0	(1,048)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(1,902)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	6,995
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Load Management Program

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END OF YEAR									
NET									
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	2,733	6	71,944	2,998	(1,896)	76,844	73,840	75,342
2020	7.22%	5,261	981	68,946	5,995	(915)	73,840	69,861	71,851
2021	6.68%	4,866	829	65,949	8,993	(86)	69,861	66,035	67,948
2022	6.18%	4,504	689	62,951	11,991	603	66,035	62,349	64,192
2023	5.71%	4,163	558	59,953	14,988	1,160	62,349	58,793	60,571
2024	5.29%	3,852	437	56,956	17,986	1,598	58,793	55,358	57,076
2025	4.89%	3,562	326	53,958	20,984	1,923	55,358	52,035	53,697
2026	4.52%	3,295	223	50,960	23,981	2,146	52,035	48,814	50,425
2027	4.46%	3,252	206	47,963	26,979	2,352	48,814	45,611	47,213
2028	4.46%	3,251	206	44,965	29,977	2,558	45,611	42,407	44,009
2029	4.46%	3,252	206	41,967	32,974	2,764	42,407	39,204	40,806
2030	4.46%	3,251	206	38,970	35,972	2,969	39,204	36,000	37,602
2031	4.46%	3,252	206	35,972	38,970	3,175	36,000	32,797	34,399
2032	4.46%	3,251	206	32,974	41,967	3,381	32,797	29,594	31,195
2033	4.46%	3,252	206	29,977	44,965	3,587	29,594	26,390	27,992
2034	4.46%	3,251	206	26,979	47,963	3,793	26,390	23,187	24,788
2035	4.46%	3,252	206	23,981	50,960	3,998	23,187	19,983	21,585
2036	4.46%	3,251	206	20,984	53,958	4,204	19,983	16,780	18,381
2037	4.46%	3,252	206	17,986	56,956	4,410	16,780	13,576	15,178
2038	4.46%	3,251	206	14,988	59,953	4,616	13,576	10,373	11,974
2039	2.23%	1,626	(421)	11,991	62,951	4,195	10,373	7,796	9,084
2040	0.00%	0	(1,048)	8,993	65,949	3,146	7,796	5,847	6,822
2041	0.00%	0	(1,048)	5,995	68,946	2,098	5,847	3,898	4,872
2042	0.00%	0	(1,048)	2,998	71,944	1,049	3,898	1,948	2,923
2043	0.00%	0	(1,048)	0	74,942	1	1,948	-1	974

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

(8) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805.5
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	63,901	63,901	63,901
EQUITY AFUDC	6,995		
DEBT AFUDC	4,045	4,045	
CPI			8,975
TOTAL	74,942	67,947	72,877

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Residential Load Management Program**

(1) YEAR	(2) INCREASED SUPPLY COSTS \$(000)	(3) UTILITY PROGRAM COSTS \$(000)	(4) PARTICIPANT PROGRAM COSTS \$(000)	(5) OTHER COSTS \$(000)	(6) TOTAL COSTS \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)	(8) AVOIDED T&D BENEFITS \$(000)	(9) PROGRAM FUEL SAVINGS \$(000)	(10) OTHER BENEFITS \$(000)	(11) TOTAL BENEFITS \$(000)	(12) NET BENEFITS \$(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	515	0	0	515	0	0	40	0	40	(475)	(436)
2011	0	1,168	0	0	1,168	0	622	59	2	683	(485)	(845)
2012	0	1,811	0	0	1,811	0	1,247	146	3	1,396	(415)	(1,167)
2013	0	2,062	0	0	2,062	0	1,886	105	11	2,001	(60)	(1,210)
2014	0	2,197	0	0	2,197	0	2,045	122	12	2,179	(19)	(1,222)
2015	0	2,144	0	0	2,144	0	2,204	187	17	2,408	263	(1,064)
2016	0	1,892	0	0	1,892	0	2,365	205	20	2,590	698	(679)
2017	0	1,658	0	0	1,658	0	2,530	240	25	2,795	1,137	(104)
2018	0	1,577	0	0	1,577	0	2,697	252	27	2,975	1,398	546
2019	0	1,459	0	0	1,459	19,272	2,851	430	(791)	21,762	20,303	9,212
2020	0	1,291	0	0	1,291	17,915	2,770	376	(1,168)	19,893	18,602	16,303
2021	0	1,129	0	0	1,129	17,192	2,691	417	(1,294)	19,005	17,875	22,938
2022	0	976	0	0	976	17,087	2,613	467	(1,497)	18,670	17,695	28,788
2023	0	830	0	0	830	17,394	2,537	370	(1,654)	18,648	17,818	34,198
2024	0	765	0	0	765	17,588	2,462	399	(1,885)	18,564	17,800	39,162
2025	0	784	0	0	784	17,555	2,388	389	(2,151)	18,181	17,398	43,617
2026	0	803	0	0	803	17,675	2,315	389	(2,327)	18,051	17,248	47,674
2027	0	823	0	0	823	17,817	2,242	400	(2,618)	17,841	17,017	51,349
2028	0	844	0	0	844	17,733	2,169	410	(2,850)	17,463	16,619	54,646
2029	0	865	0	0	865	18,199	2,097	377	(3,200)	17,472	16,607	57,671
2030	0	887	0	0	887	18,194	2,024	392	(3,540)	17,070	16,184	60,379
2031	0	909	0	0	909	18,058	1,954	404	(3,835)	16,581	15,672	62,787
2032	0	932	0	0	932	18,624	1,890	395	(4,186)	16,722	15,791	65,015
2033	0	955	0	0	955	18,578	1,834	408	(4,869)	15,951	14,996	66,959
2034	0	979	0	0	979	19,443	1,785	410	(5,378)	16,260	15,281	68,777
2035	0	1,003	0	0	1,003	19,736	1,740	428	(5,849)	16,054	15,051	70,422
2036	0	1,028	0	0	1,028	19,552	1,697	449	(6,381)	15,317	14,289	71,857
2037	0	1,054	0	0	1,054	19,970	1,658	463	(6,906)	15,185	14,131	73,160
2038	0	1,080	0	0	1,080	19,403	1,622	475	(7,485)	14,016	12,935	74,255
2039	0	1,107	0	0	1,107	19,066	1,589	492	(8,136)	13,011	11,904	75,180
2040	0	1,533	0	0	1,533	19,893	1,559	497	(8,805)	13,144	11,611	76,009
2041	0	1,571	0	0	1,571	19,699	1,530	517	(9,481)	12,264	10,693	76,711
2042	0	1,611	0	0	1,611	19,354	1,501	539	(9,473)	11,921	10,310	77,332
2043	0	1,356	0	0	1,356	19,412	1,473	570	(9,463)	11,992	10,636	77,920
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	41,599	0	0	41,599	464,409	66,586	12,218	(115,106)	428,106	386,507	
NPV	0	14,412	0	0	14,412	83,812	19,885	2,735	(14,100)	92,332	77,920	

Discount Rate: 8.89 %
Benefit/Cost Ratio (Col(11) / Col(6)) : 6.41

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Load Management Program

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILLS \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER O&M COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	13	0	216	0	230	0	0	0	0	230	211
2011	41	0	649	0	690	0	0	0	0	690	793
2012	72	0	1,082	0	1,154	0	0	0	0	1,154	1,687
2013	96	0	1,366	0	1,461	0	0	0	0	1,461	2,726
2014	111	0	1,501	0	1,612	0	0	0	0	1,612	3,779
2015	127	0	1,636	0	1,763	0	0	0	0	1,763	4,837
2016	143	0	1,771	0	1,913	0	0	0	0	1,913	5,891
2017	159	0	1,906	0	2,064	0	0	0	0	2,064	6,936
2018	175	0	2,041	0	2,215	0	0	0	0	2,215	7,965
2019	187	0	2,108	0	2,295	0	0	0	0	2,295	8,945
2020	188	0	2,108	0	2,296	0	0	0	0	2,296	9,845
2021	192	0	2,108	0	2,300	0	0	0	0	2,300	10,673
2022	198	0	2,108	0	2,306	0	0	0	0	2,306	11,435
2023	204	0	2,108	0	2,312	0	0	0	0	2,312	12,137
2024	213	0	2,108	0	2,321	0	0	0	0	2,321	12,784
2025	220	0	2,108	0	2,328	0	0	0	0	2,328	13,381
2026	229	0	2,108	0	2,337	0	0	0	0	2,337	13,930
2027	241	0	2,108	0	2,349	0	0	0	0	2,349	14,438
2028	251	0	2,108	0	2,359	0	0	0	0	2,359	14,906
2029	262	0	2,108	0	2,370	0	0	0	0	2,370	15,337
2030	275	0	2,108	0	2,383	0	0	0	0	2,383	15,736
2031	288	0	2,108	0	2,396	0	0	0	0	2,396	16,104
2032	304	0	2,108	0	2,413	0	0	0	0	2,413	16,445
2033	332	0	2,108	0	2,440	0	0	0	0	2,440	16,761
2034	338	0	2,108	0	2,446	0	0	0	0	2,446	17,052
2035	351	0	2,108	0	2,459	0	0	0	0	2,459	17,321
2036	376	0	2,108	0	2,484	0	0	0	0	2,484	17,570
2037	397	0	2,108	0	2,505	0	0	0	0	2,505	17,801
2038	414	0	2,108	0	2,522	0	0	0	0	2,522	18,014
2039	433	0	2,108	0	2,541	0	0	0	0	2,541	18,212
2040	453	0	2,108	0	2,561	0	0	0	0	2,561	18,395
2041	477	0	2,108	0	2,585	0	0	0	0	2,585	18,564
2042	502	0	2,108	0	2,610	0	0	0	0	2,610	18,722
2043	530	0	2,108	0	2,638	0	0	0	0	2,638	18,867
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
NOM	8,791	0	64,866	0	73,657	0	0	0	0	73,657	
NPV	1,750	0	17,117	0	18,867	0	0	0	0	18,867	

In Service of Gen Unit: 2019
 Discount Rate: 8.89 %
 Benefit/Cost Ratio (Col(6) / Col(10)): Infinite

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Load Management Program

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	515	216	10	0	741	40	0	0	0	40	(701)	(644)
2011	0	1,168	649	31	0	1,848	59	622	0	2	683	(1,165)	(1,627)
2012	0	1,811	1,082	55	0	2,948	146	1,247	0	3	1,396	(1,552)	(2,829)
2013	0	2,062	1,366	73	0	3,500	105	1,886	0	11	2,001	(1,499)	(3,895)
2014	0	2,197	1,501	85	0	3,783	122	2,045	0	12	2,179	(1,604)	(4,942)
2015	0	2,144	1,636	97	0	3,877	187	2,204	0	17	2,408	(1,469)	(5,824)
2016	0	1,892	1,771	108	0	3,771	205	2,365	0	20	2,590	(1,181)	(6,474)
2017	0	1,658	1,906	121	0	3,684	240	2,530	0	25	2,795	(889)	(6,924)
2018	0	1,577	2,041	133	0	3,751	252	2,697	0	27	2,975	(776)	(7,285)
2019	0	1,459	2,108	142	0	3,710	19,702	2,851	0	(791)	21,762	18,052	420
2020	0	1,291	2,108	143	0	3,542	18,291	2,770	0	(1,168)	19,893	16,351	6,830
2021	0	1,129	2,108	146	0	3,383	17,608	2,691	0	(1,294)	19,005	15,621	12,453
2022	0	976	2,108	150	0	3,234	17,554	2,613	0	(1,497)	18,670	15,436	17,557
2023	0	830	2,108	155	0	3,093	17,764	2,537	0	(1,654)	18,648	15,555	22,279
2024	0	765	2,108	162	0	3,034	17,987	2,462	0	(1,885)	18,564	15,530	26,610
2025	0	784	2,108	167	0	3,059	17,944	2,388	0	(2,151)	18,181	15,122	30,487
2026	0	803	2,108	174	0	3,085	18,064	2,315	0	(2,327)	18,051	14,966	34,002
2027	0	823	2,108	183	0	3,115	18,217	2,242	0	(2,618)	17,841	14,726	37,183
2028	0	844	2,108	191	0	3,143	18,144	2,169	0	(2,850)	17,463	14,320	40,024
2029	0	865	2,108	199	0	3,172	18,575	2,097	0	(3,200)	17,472	14,300	42,629
2030	0	887	2,108	209	0	3,204	18,586	2,024	0	(3,540)	17,070	13,867	44,949
2031	0	909	2,108	219	0	3,235	18,462	1,954	0	(3,835)	16,581	13,346	46,999
2032	0	932	2,108	231	0	3,271	19,018	1,890	0	(4,186)	16,722	13,451	48,898
2033	0	955	2,108	232	0	3,315	18,986	1,834	0	(4,869)	15,951	12,636	50,535
2034	0	979	2,108	257	0	3,344	19,853	1,785	0	(5,378)	16,260	12,916	52,072
2035	0	1,003	2,108	267	0	3,378	20,164	1,740	0	(5,849)	16,054	12,676	53,458
2036	0	1,028	2,108	286	0	3,422	20,001	1,697	0	(6,381)	15,317	11,895	54,652
2037	0	1,054	2,108	301	0	3,463	20,433	1,658	0	(6,906)	15,185	11,721	55,733
2038	0	1,080	2,108	314	0	3,503	19,879	1,622	0	(7,485)	14,016	10,513	56,623
2039	0	1,107	2,108	329	0	3,544	19,558	1,589	0	(8,136)	13,011	9,467	57,359
2040	0	1,533	2,108	344	0	3,985	20,390	1,559	0	(8,805)	13,144	9,159	58,013
2041	0	1,571	2,108	362	0	4,042	20,215	1,530	0	(9,481)	12,264	8,222	58,552
2042	0	1,611	2,108	382	0	4,100	19,895	1,501	0	(9,473)	11,921	7,821	59,023
2043	0	1,356	2,108	403	0	3,867	19,983	1,473	0	(9,463)	11,992	8,125	59,473
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	41,599	64,866	6,681	0	113,146	476,627	66,586	0	(115,106)	428,106	314,960	
NPV	0	14,412	17,117	1,330	0	32,859	86,547	19,885	0	(14,100)	92,332	59,473	

Discount Rate

8.89 %

Benefit/Cost Ratio (Col(12) / Col(7)) :

2.81

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential New Construction - Buildsmart

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	89,648	2,785	0	6,256	4,127	1,511	533	3,497	7	18,716	18,716	18,716	87,429
2020	86,144	2,676	0	6,012	2,836	1,448	547	3,497	1,144	18,160	16,678	35,394	89,615
2021	81,502	2,532	0	5,688	2,810	1,385	560	3,497	967	17,439	14,709	50,103	91,855
2022	77,038	2,393	0	5,376	2,778	1,322	574	3,497	804	16,744	12,970	63,072	94,152
2023	72,737	2,260	0	5,076	2,742	1,259	589	3,497	651	16,073	11,434	74,507	96,505
2024	68,590	2,131	0	4,787	2,701	1,196	603	3,497	510	15,425	10,077	84,584	98,918
2025	64,582	2,006	0	4,507	2,655	1,133	618	3,497	380	14,797	8,878	93,462	101,391
2026	60,705	1,886	0	4,236	2,606	1,070	634	3,497	260	14,189	7,818	101,281	103,926
2027	56,948	1,769	0	3,974	2,461	1,007	650	3,497	240	13,598	6,881	108,162	106,524
2028	53,211	1,653	0	3,713	2,297	944	666	3,497	240	13,011	6,047	114,209	109,187
2029	49,474	1,537	0	3,453	2,133	881	683	3,497	240	12,424	5,303	119,512	111,917
2030	45,736	1,421	0	3,192	1,970	818	700	3,497	240	11,837	4,640	124,152	114,715
2031	41,999	1,305	0	2,931	1,805	755	717	3,497	240	11,251	4,050	128,202	117,582
2032	38,262	1,189	0	2,670	1,642	692	735	3,497	240	10,665	3,526	131,728	120,522
2033	34,525	1,072	0	2,409	1,478	629	754	3,497	240	10,080	3,061	134,789	123,535
2034	30,787	956	0	2,149	1,314	567	772	3,497	240	9,495	2,648	137,437	126,623
2035	27,050	840	0	1,888	1,150	504	792	3,497	240	8,911	2,282	139,719	129,789
2036	23,313	724	0	1,627	987	441	812	3,497	240	8,327	1,958	141,677	133,034
2037	19,575	608	0	1,366	823	378	832	3,497	240	7,744	1,673	143,350	136,360
2038	15,838	492	0	1,105	659	315	853	3,497	240	7,161	1,420	144,770	139,769
2039	12,101	376	0	844	1,227	252	874	3,497	(491)	6,579	1,198	145,969	143,263
2040	9,095	283	0	635	1,827	189	896	3,497	(1,223)	6,103	1,021	146,990	146,844
2041	6,821	212	0	476	1,727	126	918	3,497	(1,223)	5,733	881	147,871	150,515
2042	4,547	141	0	317	1,627	63	941	3,497	(1,223)	5,364	757	148,628	154,278
2043	2,273	71	0	159	1,528	0	965	3,497	(1,223)	4,996	647	149,275	158,135

IN SERVICE COST (\$000)	87,429
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential New Construction - Buildsmart

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPR FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	3,188	3,188	3,497	3,497	3,171	3,171	7	8,161	0	0	0	7	(2,212)
2020	7.22%	6,138	9,326	3,497	6,994	3,171	6,341	1,144	8,161	0	0	0	1,144	(1,067)
2021	6.68%	5,677	15,003	3,497	10,491	3,171	9,512	967	8,161	0	0	0	967	(101)
2022	6.18%	5,254	20,257	3,497	13,989	3,171	12,683	804	8,161	0	0	0	804	703
2023	5.71%	4,857	25,114	3,497	17,486	3,171	15,854	651	8,161	0	0	0	651	1,354
2024	5.29%	4,493	29,607	3,497	20,983	3,171	19,024	510	8,161	0	0	0	510	1,864
2025	4.89%	4,156	33,763	3,497	24,480	3,171	22,195	380	8,161	0	0	0	380	2,244
2026	4.52%	3,845	37,608	3,497	27,977	3,171	25,366	260	8,161	0	0	0	260	2,504
2027	4.46%	3,794	41,401	3,497	31,474	3,171	28,537	240	8,161	0	0	0	240	2,744
2028	4.46%	3,793	45,194	3,497	34,972	3,171	31,707	240	8,161	0	0	0	240	2,984
2029	4.46%	3,794	48,988	3,497	38,469	3,171	34,878	240	8,161	0	0	0	240	3,224
2030	4.46%	3,793	52,780	3,497	41,966	3,171	38,049	240	8,161	0	0	0	240	3,464
2031	4.46%	3,794	56,574	3,497	45,463	3,171	41,220	240	8,161	0	0	0	240	3,704
2032	4.46%	3,793	60,367	3,497	48,960	3,171	44,390	240	8,161	0	0	0	240	3,944
2033	4.46%	3,794	64,160	3,497	52,457	3,171	47,561	240	8,161	0	0	0	240	4,185
2034	4.46%	3,793	67,953	3,497	55,955	3,171	50,732	240	8,161	0	0	0	240	4,424
2035	4.46%	3,794	71,747	3,497	59,452	3,171	53,903	240	8,161	0	0	0	240	4,665
2036	4.46%	3,793	75,539	3,497	62,949	3,171	57,073	240	8,161	0	0	0	240	4,905
2037	4.46%	3,794	79,333	3,497	66,446	3,171	60,244	240	8,161	0	0	0	240	5,145
2038	4.46%	3,793	83,126	3,497	69,943	3,171	63,415	240	8,161	0	0	0	240	5,385
2039	2.23%	1,897	85,023	3,497	73,440	3,171	66,586	(491)	8,161	0	0	0	(491)	4,893
2040	0.00%	0	85,023	3,497	76,938	3,171	69,756	(1,223)	8,161	0	0	0	(1,223)	3,670
2041	0.00%	0	85,023	3,497	80,435	3,171	72,927	(1,223)	8,161	0	0	0	(1,223)	2,447
2042	0.00%	0	85,023	3,497	83,932	3,171	76,098	(1,223)	8,161	0	0	0	(1,223)	1,224
2043	0.00%	0	85,023	3,497	87,429	3,171	79,268	(1,223)	8,161	0	0	0	(1,223)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,219)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	8,161
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential New Construction - Buildsmart

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	END OF YEAR NET PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	3,188	7	83,932	3,497	(2,212)	89,648	86,144	87,896
2020	7.22%	6,138	1,144	80,435	6,994	(1,067)	86,144	81,502	83,823
2021	6.68%	5,677	967	76,938	10,491	(101)	81,502	77,038	79,270
2022	6.18%	5,254	804	73,440	13,989	703	77,038	72,737	74,888
2023	5.71%	4,857	651	69,943	17,486	1,354	72,737	68,590	70,664
2024	5.29%	4,493	510	66,446	20,983	1,864	68,590	64,582	66,586
2025	4.89%	4,156	380	62,949	24,480	2,244	64,582	60,705	62,644
2026	4.52%	3,845	260	59,452	27,977	2,504	60,705	56,948	58,827
2027	4.46%	3,794	240	55,955	31,474	2,744	56,948	53,211	55,079
2028	4.46%	3,793	240	52,457	34,972	2,984	53,211	49,474	51,342
2029	4.46%	3,794	240	48,960	38,469	3,224	49,474	45,736	47,605
2030	4.46%	3,793	240	45,463	41,966	3,464	45,736	41,999	43,868
2031	4.46%	3,794	240	41,966	45,463	3,704	41,999	38,262	40,130
2032	4.46%	3,793	240	38,469	48,960	3,944	38,262	34,525	36,393
2033	4.46%	3,794	240	34,972	52,457	4,185	34,525	30,787	32,656
2034	4.46%	3,793	240	31,474	55,955	4,424	30,787	27,050	28,919
2035	4.46%	3,794	240	27,977	59,452	4,665	27,050	23,313	25,181
2036	4.46%	3,793	240	24,480	62,949	4,905	23,313	19,575	21,444
2037	4.46%	3,794	240	20,983	66,446	5,145	19,575	15,838	17,707
2038	4.46%	3,793	240	17,486	69,943	5,385	15,838	12,101	13,970
2039	2.23%	1,897	(491)	13,989	73,440	4,893	12,101	9,095	10,598
2040	0.00%	0	(1,223)	10,491	76,938	3,670	9,095	6,821	7,958
2041	0.00%	0	(1,223)	6,994	80,435	2,447	6,821	4,547	5,684
2042	0.00%	0	(1,223)	3,497	83,932	1,224	4,547	2,273	3,410
2043	0.00%	0	(1,223)	0	87,429	1	2,273	-1	1,136

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(2) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	74,549	74,549	74,549
EQUITY AFUDC	8,161		
DEBT AFUDC	4,719	4,719	
CPI			10,471
TOTAL	87,429	79,268	85,020

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_R6Q
PROGRAM NAME: Residential New Construction - Buildsmart

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	704	3,974	0	4,678	0	0	230	2	232	(4,446)	(4,083)
2011	0	1,395	7,873	0	9,268	0	141	840	4	985	(8,283)	(11,069)
2012	0	1,841	10,500	0	12,341	0	418	1,777	9	2,204	(10,137)	(18,922)
2013	0	2,267	13,085	0	15,352	0	809	2,819	225	3,852	(11,499)	(27,102)
2014	0	2,772	16,259	0	19,031	0	1,253	4,254	368	5,876	(13,155)	(35,696)
2015	0	2,694	16,100	0	18,794	0	1,783	6,426	545	8,754	(10,040)	(41,720)
2016	0	2,800	16,737	0	19,537	0	2,286	9,893	786	12,965	(6,572)	(45,341)
2017	0	2,901	17,341	0	20,242	0	2,799	13,006	1,042	16,847	(3,395)	(47,059)
2018	0	3,041	18,177	0	21,218	0	3,321	16,048	1,323	20,693	(526)	(47,304)
2019	0	0	0	0	0	22,483	3,818	19,661	601	46,564	46,564	(27,429)
2020	0	0	0	0	0	20,900	3,709	20,432	284	45,324	45,324	(9,663)
2021	0	0	0	0	0	20,056	3,601	21,289	262	45,208	45,208	6,612
2022	0	0	0	0	0	19,934	3,497	22,296	245	45,973	45,973	21,811
2023	0	0	0	0	0	20,292	3,396	22,163	165	46,016	46,016	35,782
2024	0	0	0	0	0	20,519	3,298	23,014	143	46,974	46,974	48,881
2025	0	0	0	0	0	20,480	3,202	23,533	67	47,283	47,283	60,989
2026	0	0	0	0	0	20,620	3,107	23,562	(17)	47,272	47,272	72,107
2027	0	0	0	0	0	20,786	3,013	23,818	(125)	47,492	47,492	82,365
2028	0	0	0	0	0	20,688	2,919	24,334	(143)	47,798	47,798	91,847
2029	0	0	0	0	0	21,231	2,826	23,873	(202)	47,729	47,729	100,542
2030	0	0	0	0	0	21,226	2,733	24,251	(325)	47,885	47,885	108,553
2031	0	0	0	0	0	21,067	2,640	25,043	(342)	48,409	48,409	115,991
2032	0	0	0	0	0	21,727	2,550	24,334	(413)	48,198	48,198	122,793
2033	0	0	0	0	0	21,674	2,463	25,199	(831)	48,505	48,505	129,079
2034	0	0	0	0	0	22,682	2,381	24,241	(1,027)	48,279	48,279	134,825
2035	0	0	0	0	0	23,025	2,305	26,103	(1,141)	50,292	50,292	140,322
2036	0	0	0	0	0	22,810	2,236	27,464	(1,286)	51,225	51,225	145,464
2037	0	0	0	0	0	23,297	2,174	27,900	(1,410)	51,962	51,962	150,254
2038	0	0	0	0	0	22,636	2,120	29,028	(1,555)	52,230	52,230	154,676
2039	0	0	0	0	0	22,243	2,073	29,581	(1,744)	52,153	52,153	158,732
2040	0	1,477	8,335	0	9,813	23,207	2,031	30,062	(1,934)	53,368	43,555	161,842
2041	0	2,927	16,513	0	19,440	22,981	1,993	31,024	(2,095)	53,902	34,462	164,102
2042	0	3,862	22,025	0	25,887	22,578	1,954	32,033	(1,415)	55,151	29,264	165,865
2043	0	4,754	27,447	0	32,202	22,647	1,917	34,603	(679)	58,488	26,287	167,319
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
NOM	0	33,438	194,366	0	227,804	541,791	80,768	694,137	(10,610)	1,306,086	1,078,283	
NPV	0	13,508	78,982	0	92,490	97,778	21,251	139,354	1,425	259,808	167,319	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) :

2.81

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_RPQ
PROGRAM NAME: Residential New Construction - Bulksmart

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	285	0	2,982	0	3,267	3,974	0	0	3,974	(707)	(649)
2011	1,155	0	5,764	0	6,919	7,873	0	0	7,873	(953)	(1,453)
2012	2,602	0	7,485	0	10,087	10,500	0	0	10,500	(413)	(1,773)
2013	4,563	0	9,090	0	13,653	13,085	0	0	13,085	568	(1,369)
2014	7,205	0	11,003	0	18,208	16,259	0	0	16,259	1,949	(96)
2015	10,232	0	10,612	0	20,844	16,100	0	0	16,100	4,743	2,750
2016	13,327	0	10,762	0	24,089	16,737	0	0	16,737	7,352	6,801
2017	16,697	0	10,878	0	27,575	17,341	0	0	17,341	10,234	11,981
2018	20,174	0	11,125	0	31,299	18,177	0	0	18,177	13,122	18,079
2019	22,494	0	0	0	22,494	0	0	0	0	22,494	27,680
2020	22,565	0	0	0	22,565	0	0	0	0	22,565	36,525
2021	23,056	0	0	0	23,056	0	0	0	0	23,056	44,825
2022	23,725	0	0	0	23,725	0	0	0	0	23,725	52,669
2023	24,444	0	0	0	24,444	0	0	0	0	24,444	60,091
2024	25,529	0	0	0	25,529	0	0	0	0	25,529	67,209
2025	26,446	0	0	0	26,446	0	0	0	0	26,446	73,982
2026	27,508	0	0	0	27,508	0	0	0	0	27,508	80,451
2027	28,947	0	0	0	28,947	0	0	0	0	28,947	86,704
2028	30,123	0	0	0	30,123	0	0	0	0	30,123	92,679
2029	31,471	0	0	0	31,471	0	0	0	0	31,471	98,412
2030	33,011	0	0	0	33,011	0	0	0	0	33,011	103,935
2031	34,514	0	0	0	34,514	0	0	0	0	34,514	109,239
2032	36,553	0	0	0	36,553	0	0	0	0	36,553	114,397
2033	39,822	0	0	0	39,822	0	0	0	0	39,822	119,557
2034	40,569	0	0	0	40,569	0	0	0	0	40,569	124,386
2035	42,165	0	0	0	42,165	0	0	0	0	42,165	128,995
2036	45,182	0	0	0	45,182	0	0	0	0	45,182	133,530
2037	47,600	0	0	0	47,600	0	0	0	0	47,600	137,918
2038	49,671	0	0	0	49,671	0	0	0	0	49,671	142,124
2039	51,947	0	0	0	51,947	0	0	0	0	51,947	146,163
2040	54,367	0	2,982	0	57,349	8,335	0	0	8,335	49,014	149,663
2041	57,241	0	5,764	0	63,005	16,513	0	0	16,513	46,492	152,712
2042	60,309	0	7,485	0	67,794	22,025	0	0	22,025	45,769	155,469
2043	63,584	0	9,090	0	72,674	27,447	0	0	27,447	45,227	157,970
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
NOM	1,019,080	0	105,024	0	1,124,104	194,366	0	0	194,366	929,738	
NPV	185,382	0	51,571	0	236,952	78,982	0	0	78,982	157,970	

In Service of Gen Unit: 2019
Discount Rate : 8.89 %
Benefit/Cost Ratio (Col(6) / Col(10)) 3.00

Staff's 1st Data Request #1 - Revised

RATE IMPACT TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential New Construction - Buildsmart

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	704	2,982	216	0	3,903	230	0	2	232	(3,671)	(3,371)	
2011	0	1,395	5,764	878	0	8,037	840	141	4	985	(7,052)	(9,320)	
2012	0	1,841	7,485	1,977	0	11,304	1,777	418	9	2,204	(9,100)	(16,368)	
2013	0	2,267	9,090	3,468	0	14,825	2,819	809	225	3,852	(10,972)	(24,174)	
2014	0	2,772	11,003	5,476	0	19,251	4,254	1,253	368	5,876	(13,375)	(32,912)	
2015	0	2,694	10,612	7,776	0	21,082	6,426	1,783	545	8,754	(12,328)	(40,308)	
2016	0	2,800	10,762	10,128	0	23,691	9,893	2,286	786	12,965	(10,726)	(46,218)	
2017	0	2,901	10,878	12,689	0	26,469	13,006	2,799	1,042	16,847	(9,622)	(51,087)	
2018	0	3,041	11,125	15,332	0	29,498	16,048	3,321	1,323	20,693	(8,806)	(55,180)	
2019	0	0	0	17,096	0	17,096	42,144	3,818	601	46,564	29,468	(42,602)	
2020	0	0	0	17,149	0	17,149	41,331	3,709	284	45,324	28,175	(31,558)	
2021	0	0	0	17,523	0	17,523	41,345	3,601	262	45,208	27,685	(21,592)	
2022	0	0	0	18,031	0	18,031	42,231	3,497	245	45,973	27,942	(12,354)	
2023	0	0	0	18,577	0	18,577	42,455	3,396	165	46,016	27,439	(4,023)	
2024	0	0	0	19,402	0	19,402	43,533	3,298	143	46,974	27,571	3,666	
2025	0	0	0	20,099	0	20,099	44,014	3,202	67	47,283	27,184	10,627	
2026	0	0	0	20,906	0	20,906	44,182	3,107	(17)	47,272	26,366	16,828	
2027	0	0	0	21,999	0	21,999	44,604	3,013	(125)	47,492	25,492	22,334	
2028	0	0	0	22,893	0	22,893	45,022	2,919	(143)	47,798	24,905	27,275	
2029	0	0	0	23,918	0	23,918	45,104	2,826	(202)	47,729	23,810	31,612	
2030	0	0	0	25,088	0	25,088	45,477	2,733	(325)	47,885	22,797	35,426	
2031	0	0	0	26,231	0	26,231	46,110	2,640	(342)	48,409	22,178	38,834	
2032	0	0	0	27,780	0	27,780	46,061	2,550	(413)	48,198	20,418	41,715	
2033	0	0	0	30,265	0	30,265	46,873	2,463	(831)	48,505	18,240	44,079	
2034	0	0	0	30,832	0	30,832	46,924	2,381	(1,027)	48,279	17,446	46,155	
2035	0	0	0	32,045	0	32,045	49,127	2,305	(1,141)	50,292	18,247	48,150	
2036	0	0	0	34,338	0	34,338	50,274	2,236	(1,286)	51,225	16,886	49,845	
2037	0	0	0	36,176	0	36,176	51,198	2,174	(1,410)	51,962	15,786	51,300	
2038	0	0	0	37,750	0	37,750	51,665	2,120	(1,555)	52,230	14,479	52,526	
2039	0	0	0	39,480	0	39,480	51,824	2,073	(1,744)	52,153	12,674	53,512	
2040	0	1,477	2,982	41,319	0	45,779	53,270	2,031	(1,934)	53,368	7,589	54,054	
2041	0	2,927	5,764	43,503	0	52,194	54,005	1,993	(2,095)	53,902	1,708	54,166	
2042	0	3,862	7,485	45,834	0	57,182	54,612	1,954	(1,415)	55,151	(2,031)	54,043	
2043	0	4,754	9,090	48,324	0	62,168	57,250	1,917	(679)	58,488	(3,680)	53,840	
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
NOM.	0	33,438	105,024	774,501	0	912,963	1,235,928	80,768	0	(10,610)	1,306,086	393,123	
NPV	0	13,508	51,571	140,890	0	205,969	237,132	21,251	0	1,425	259,808	53,840	

Discount Rate 8.89 %
 Benefit/Cost Ratio (Col(12) / Col(7)) : 1.26

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Photovoltaics (PV)

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	WORTH	PW FIXED	COST BASIS
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3,120	97	0	218	144	53	19	122	0	651	651	651	3,042
2020	2,998	93	0	209	99	50	19	122	40	632	580	1,232	3,119
2021	2,836	88	0	198	98	48	19	122	34	607	512	1,744	3,197
2022	2,681	83	0	187	97	46	20	122	28	583	451	2,195	3,276
2023	2,531	79	0	177	95	44	20	122	23	559	398	2,593	3,358
2024	2,387	74	0	167	94	42	21	122	18	537	351	2,943	3,442
2025	2,247	70	0	157	92	39	22	122	13	515	309	3,252	3,528
2026	2,113	66	0	147	91	37	22	122	9	494	272	3,525	3,617
2027	1,982	62	0	138	86	35	23	122	8	473	239	3,764	3,707
2028	1,852	58	0	129	80	33	23	122	8	453	210	3,974	3,800
2029	1,722	53	0	120	74	31	24	122	8	432	185	4,159	3,895
2030	1,592	49	0	111	69	28	24	122	8	412	161	4,320	3,992
2031	1,462	45	0	102	63	26	25	122	8	392	141	4,461	4,092
2032	1,331	41	0	93	57	24	26	122	8	371	123	4,584	4,194
2033	1,201	37	0	84	51	22	26	122	8	351	107	4,691	4,299
2034	1,071	33	0	75	46	20	27	122	8	330	92	4,783	4,406
2035	941	29	0	66	40	18	28	122	8	310	79	4,862	4,517
2036	811	25	0	57	34	15	28	122	8	290	68	4,930	4,629
2037	681	21	0	48	29	13	29	122	8	269	58	4,988	4,745
2038	551	17	0	38	23	11	30	122	8	249	49	5,038	4,864
2039	421	13	0	29	43	9	30	122	(17)	229	42	5,080	4,985
2040	317	10	0	22	64	7	31	122	(43)	212	36	5,115	5,110
2041	237	7	0	17	60	4	32	122	(43)	200	31	5,146	5,238
2042	158	5	0	11	57	2	33	122	(43)	187	26	5,172	5,369
2043	79	2	0	6	53	(0)	34	122	(43)	174	23	5,195	5,503

IN SERVICE COST (\$000)	3,042
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Residential Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPR FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	111	111	122	122	110	110	0	284	0	0	0	0	(77)
2020	7.22%	214	325	122	243	110	221	40	284	0	0	0	40	(37)
2021	6.68%	198	522	122	365	110	331	34	284	0	0	0	34	(4)
2022	6.18%	183	705	122	487	110	441	28	284	0	0	0	28	24
2023	5.71%	169	874	122	608	110	552	23	284	0	0	0	23	47
2024	5.29%	156	1,030	122	730	110	662	18	284	0	0	0	18	65
2025	4.89%	145	1,175	122	852	110	772	13	284	0	0	0	13	78
2026	4.52%	134	1,309	122	974	110	883	9	284	0	0	0	9	87
2027	4.46%	132	1,441	122	1,095	110	993	8	284	0	0	0	8	95
2028	4.46%	132	1,573	122	1,217	110	1,103	8	284	0	0	0	8	104
2029	4.46%	132	1,705	122	1,339	110	1,214	8	284	0	0	0	8	112
2030	4.46%	132	1,837	122	1,460	110	1,324	8	284	0	0	0	8	121
2031	4.46%	132	1,969	122	1,582	110	1,434	8	284	0	0	0	8	129
2032	4.46%	132	2,101	122	1,704	110	1,545	8	284	0	0	0	8	137
2033	4.46%	132	2,233	122	1,825	110	1,655	8	284	0	0	0	8	146
2034	4.46%	132	2,365	122	1,947	110	1,765	8	284	0	0	0	8	154
2035	4.46%	132	2,497	122	2,069	110	1,876	8	284	0	0	0	8	162
2036	4.46%	132	2,629	122	2,191	110	1,986	8	284	0	0	0	8	171
2037	4.46%	132	2,761	122	2,312	110	2,096	8	284	0	0	0	8	179
2038	4.46%	132	2,893	122	2,434	110	2,207	8	284	0	0	0	8	187
2039	2.23%	66	2,959	122	2,556	110	2,317	(17)	284	0	0	0	(17)	170
2040	0.00%	0	2,959	122	2,677	110	2,427	(43)	284	0	0	0	(43)	128
2041	0.00%	0	2,959	122	2,799	110	2,538	(43)	284	0	0	0	(43)	85
2042	0.00%	0	2,959	122	2,921	110	2,648	(43)	284	0	0	0	(43)	43
2043	0.00%	0	2,959	122	3,042	110	2,758	(43)	284	0	0	0	(43)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(77)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	284
BOOK DEPR RATE - 1/USEFUL LIFE	4.06%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Residential Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END OF YEAR									
NET									
	TAX DEPRECIATION	TAX DEPRECIATION	DEFERRED TAX	PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	111	0	2,921	122	(77)	3,120	2,998	3,059
2020	7.22%	214	40	2,799	243	(37)	2,998	2,836	2,917
2021	6.68%	198	34	2,677	365	(4)	2,836	2,681	2,759
2022	6.18%	183	28	2,556	487	24	2,681	2,531	2,606
2023	5.71%	169	23	2,434	608	47	2,531	2,387	2,459
2024	5.29%	156	18	2,312	730	65	2,387	2,247	2,317
2025	4.89%	145	13	2,191	852	78	2,247	2,113	2,180
2026	4.52%	134	9	2,069	974	87	2,113	1,982	2,047
2027	4.46%	132	8	1,947	1,095	95	1,982	1,852	1,917
2028	4.46%	132	8	1,825	1,217	104	1,852	1,722	1,787
2029	4.46%	132	8	1,704	1,339	112	1,722	1,592	1,657
2030	4.46%	132	8	1,582	1,460	121	1,592	1,462	1,527
2031	4.46%	132	8	1,460	1,582	129	1,462	1,331	1,397
2032	4.46%	132	8	1,339	1,704	137	1,331	1,201	1,266
2033	4.46%	132	8	1,217	1,825	146	1,201	1,071	1,136
2034	4.46%	132	8	1,095	1,947	154	1,071	941	1,006
2035	4.46%	132	8	974	2,069	162	941	811	876
2036	4.46%	132	8	852	2,191	171	811	681	746
2037	4.46%	132	8	730	2,312	179	681	551	616
2038	4.46%	132	8	608	2,434	187	551	421	486
2039	2.23%	66	(17)	487	2,556	170	421	317	369
2040	0.00%	0	(43)	365	2,677	128	317	237	277
2041	0.00%	0	(43)	243	2,799	85	237	158	198
2042	0.00%	0	(43)	122	2,921	43	158	79	119
2043	0.00%	0	(43)	(0)	3,042	0	79	0	40

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	2,594	2,594	2,594
EQUITY AFUDC	284		
DEBT AFUDC	164	164	
CPI			364
TOTAL	3,042	2,758	2,959

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Residential Photovoltaics (PV)**

PSC FORM CE 2.3
PAGE 1 OF 1

(1) YEAR	(2) INCREASED SUPPLY COSTS \$(000)	(3) UTILITY PROGRAM COSTS \$(000)	(4) PARTICIPANT PROGRAM COSTS \$(000)	(5) OTHER COSTS \$(000)	(6) TOTAL COSTS \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)	(8) AVOIDED T&D BENEFITS \$(000)	(9) PROGRAM FUEL SAVINGS \$(000)	(10) OTHER BENEFITS \$(000)	(11) TOTAL BENEFITS \$(000)	(12) NET BENEFITS \$(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	492	4,550	0	5,042	0	0	27	0	28	(5,014)	(4,605)
2011	0	571	14,204	0	14,775	0	10	131	0	141	(14,634)	(16,948)
2012	0	379	14,952	0	15,331	0	39	287	1	327	(15,004)	(28,570)
2013	0	372	15,730	0	16,101	0	71	442	39	552	(15,550)	(39,631)
2014	0	374	16,537	0	16,911	0	100	616	58	774	(16,136)	(50,173)
2015	0	0	1,510	0	1,510	0	127	759	72	958	(552)	(50,505)
2016	0	0	1,548	0	1,548	0	124	896	81	1,100	(448)	(50,751)
2017	0	0	1,587	0	1,587	0	120	983	88	1,190	(396)	(50,952)
2018	0	0	1,626	0	1,626	0	116	1,046	96	1,259	(368)	(51,123)
2019	0	0	1,667	0	1,667	736	113	1,171	70	2,089	422	(50,942)
2020	0	0	1,709	0	1,709	674	110	1,213	62	2,060	351	(50,805)
2021	0	0	1,751	0	1,751	640	106	1,256	64	2,067	315	(50,691)
2022	0	0	1,795	0	1,795	630	103	1,292	70	2,096	301	(50,592)
2023	0	0	1,840	0	1,840	637	100	1,284	72	2,093	253	(50,515)
2024	0	0	1,886	0	1,886	640	97	1,322	76	2,136	250	(50,446)
2025	0	0	1,933	0	1,933	634	94	1,346	80	2,153	220	(50,389)
2026	0	0	1,981	0	1,981	634	91	1,346	81	2,151	170	(50,349)
2027	0	0	2,031	0	2,031	635	88	1,351	84	2,157	126	(50,322)
2028	0	0	2,082	0	2,082	627	85	1,377	90	2,179	97	(50,303)
2029	0	0	2,134	0	2,134	641	82	1,371	98	2,191	57	(50,292)
2030	0	0	10,159	0	10,159	636	79	1,592	139	2,445	(7,714)	(51,583)
2031	0	0	26,946	0	26,946	631	76	1,618	149	2,473	(24,473)	(55,343)
2032	0	0	27,742	0	27,742	668	73	1,605	158	2,504	(25,238)	(58,904)
2033	0	0	28,561	0	28,561	689	71	1,650	156	2,566	(25,995)	(62,273)
2034	0	0	29,405	0	29,405	747	69	1,638	162	2,617	(26,789)	(65,461)
2035	0	0	2,474	0	2,474	781	68	1,721	172	2,742	268	(65,432)
2036	0	0	2,536	0	2,536	781	67	1,789	182	2,820	283	(65,404)
2037	0	0	2,600	0	2,600	793	66	1,825	193	2,876	276	(65,378)
2038	0	0	2,665	0	2,665	764	64	1,989	231	3,048	384	(65,346)
2039	0	0	2,731	0	2,731	747	63	2,028	243	3,081	349	(65,319)
2040	0	0	2,800	0	2,800	782	62	2,068	257	3,169	369	(65,292)
2041	0	0	2,870	0	2,870	779	61	2,132	271	3,243	373	(65,268)
2042	0	0	2,941	0	2,941	769	60	2,199	316	3,344	402	(65,244)
2043	0	0	3,015	0	3,015	776	59	2,319	364	3,518	503	(65,216)
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
NOM	0	2,188	240,496	0	242,684	17,468	2,711	45,689	4,278	70,146	(172,538)	
NPV	0	1,736	77,833	0	79,569	3,110	829	9,657	757	14,353	(65,216)	

Discount Rate: 8.89 %
Benefit/Cost Ratio (Col(11) / Col(6)) : 0.18

Staff's 1st Data Request #1 - Revised

PARTICIPANT COSTS AND BENEFITS
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Photovoltaics (PV)

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(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	44	2,308	910	0	3,262	4,498	51	0	4,550	(1,287)	(1,182)
2011	228	7,043	2,747	0	10,018	13,941	263	0	14,204	(4,186)	(4,713)
2012	528	7,144	2,747	0	10,419	14,359	593	0	14,952	(4,533)	(8,224)
2013	858	7,247	2,747	0	10,852	14,790	940	0	15,730	(4,878)	(11,694)
2014	1,232	7,352	2,747	0	11,331	15,234	1,303	0	16,537	(5,206)	(15,095)
2015	1,459	0	0	0	1,459	0	1,510	0	1,510	(51)	(15,126)
2016	1,509	0	0	0	1,509	0	1,548	0	1,548	(39)	(15,147)
2017	1,564	0	0	0	1,564	0	1,587	0	1,587	(22)	(15,158)
2018	1,506	0	0	0	1,506	0	1,626	0	1,626	(120)	(15,214)
2019	1,551	0	0	0	1,551	0	1,667	0	1,667	(116)	(15,264)
2020	1,546	0	0	0	1,546	0	1,709	0	1,709	(163)	(15,327)
2021	1,569	0	0	0	1,569	0	1,751	0	1,751	(182)	(15,393)
2022	1,604	0	0	0	1,604	0	1,795	0	1,795	(191)	(15,456)
2023	1,642	0	0	0	1,642	0	1,840	0	1,840	(198)	(15,516)
2024	1,704	0	0	0	1,704	0	1,886	0	1,886	(182)	(15,567)
2025	1,754	0	0	0	1,754	0	1,933	0	1,933	(179)	(15,612)
2026	1,812	0	0	0	1,812	0	1,981	0	1,981	(169)	(15,652)
2027	1,895	0	0	0	1,895	0	2,031	0	2,031	(136)	(15,682)
2028	1,959	0	0	0	1,959	0	2,082	0	2,082	(123)	(15,706)
2029	2,033	0	0	0	2,033	0	2,134	0	2,134	(100)	(15,724)
2030	2,539	3,141	0	0	5,680	7,888	2,271	0	10,159	(4,479)	(16,474)
2031	2,834	9,611	0	0	12,445	24,446	2,500	0	26,946	(14,501)	(18,702)
2032	2,982	9,776	0	0	12,757	25,179	2,563	0	27,742	(14,985)	(20,816)
2033	3,227	9,945	0	0	13,172	25,934	2,627	0	28,561	(15,390)	(22,811)
2034	3,266	10,118	0	0	13,384	26,712	2,693	0	29,405	(16,021)	(24,717)
2035	3,024	0	0	0	3,024	0	2,474	0	2,474	549	(24,657)
2036	3,219	0	0	0	3,219	0	2,536	0	2,536	683	(24,589)
2037	3,369	0	0	0	3,369	0	2,600	0	2,600	769	(24,518)
2038	3,680	0	0	0	3,680	0	2,665	0	2,665	1,015	(24,432)
2039	3,824	0	0	0	3,824	0	2,731	0	2,731	1,092	(24,347)
2040	3,976	0	0	0	3,976	0	2,800	0	2,800	1,176	(24,263)
2041	4,159	0	0	0	4,159	0	2,870	0	2,870	1,289	(24,179)
2042	4,353	0	0	0	4,353	0	2,941	0	2,941	1,412	(24,094)
2043	4,560	0	0	0	4,560	0	3,015	0	3,015	1,545	(24,008)
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
NOM	77,008	73,684	11,899	0	162,591	172,982	67,514	0	240,496	(77,905)	
NPV	15,368	29,427	9,030	0	53,825	62,655	15,178	0	77,833	(24,008)	

In Service of Gen Unit: 2019
 Discount Rate : 8.89 %
 Benefit/Cost Ratio (Col(6) / Col(10)) 0.69

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Power Savers Energy Audit Program

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	7,140	222	0	498	329	120	42	279	1	1,491	1,491	1,491	6,963
2020	6,861	213	0	479	226	115	44	279	91	1,446	1,328	2,819	7,137
2021	6,491	202	0	453	224	110	45	279	77	1,389	1,171	3,990	7,316
2022	6,136	191	0	428	221	105	46	279	64	1,334	1,033	5,023	7,499
2023	5,793	180	0	404	218	100	47	279	52	1,280	911	5,934	7,686
2024	5,463	170	0	381	215	95	48	279	41	1,229	803	6,737	7,878
2025	5,144	160	0	359	211	90	49	279	30	1,179	707	7,444	8,075
2026	4,835	150	0	337	208	85	50	279	21	1,130	623	8,067	8,277
2027	4,536	141	0	317	196	80	52	279	19	1,083	548	8,615	8,484
2028	4,238	132	0	296	183	75	53	279	19	1,036	482	9,096	8,696
2029	3,940	122	0	275	170	70	54	279	19	990	422	9,519	8,914
2030	3,643	113	0	254	157	65	56	279	19	943	370	9,888	9,136
2031	3,345	104	0	233	144	60	57	279	19	896	323	10,211	9,365
2032	3,047	95	0	213	131	55	59	279	19	849	281	10,492	9,599
2033	2,750	85	0	192	118	50	60	279	19	803	244	10,735	9,839
2034	2,452	76	0	171	105	45	62	279	19	756	211	10,946	10,085
2035	2,154	67	0	150	92	40	63	279	19	710	182	11,128	10,337
2036	1,857	58	0	130	79	35	65	279	19	663	156	11,284	10,596
2037	1,559	48	0	109	66	30	66	279	19	617	133	11,417	10,860
2038	1,261	39	0	88	53	25	68	279	19	570	113	11,530	11,132
2039	964	30	0	67	98	20	70	279	(39)	524	95	11,626	11,410
2040	724	23	0	51	145	15	71	279	(97)	486	81	11,707	11,695
2041	543	17	0	38	138	10	73	279	(97)	457	70	11,777	11,988
2042	362	11	0	25	130	5	75	279	(97)	427	60	11,837	12,288
2043	181	6	0	13	122	(0)	77	279	(97)	398	52	11,889	12,595

IN SERVICE COST (\$000)	6,963
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ

PSC FORM CE 1.1A

PAGE 2a OF 2

PROGRAM NAME: Residential Power Savers Energy Audit Program

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	{10}*{11} TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX {9}-{12}+{13} \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	254	254	279	279	253	253	1	650	0	0	0	1	{176}
2020	7.22%	489	743	279	557	253	505	91	650	0	0	0	91	{85}
2021	6.68%	452	1,195	279	836	253	758	77	650	0	0	0	77	{8}
2022	6.18%	418	1,613	279	1,114	253	1,010	64	650	0	0	0	64	56
2023	5.71%	387	2,000	279	1,393	253	1,263	52	650	0	0	0	52	108
2024	5.29%	358	2,358	279	1,671	253	1,515	41	650	0	0	0	41	148
2025	4.89%	331	2,689	279	1,950	253	1,768	30	650	0	0	0	30	179
2026	4.52%	306	2,995	279	2,228	253	2,020	21	650	0	0	0	21	199
2027	4.46%	302	3,297	279	2,507	253	2,273	19	650	0	0	0	19	219
2028	4.46%	302	3,599	279	2,785	253	2,525	19	650	0	0	0	19	238
2029	4.46%	302	3,902	279	3,064	253	2,778	19	650	0	0	0	19	257
2030	4.46%	302	4,204	279	3,342	253	3,030	19	650	0	0	0	19	276
2031	4.46%	302	4,506	279	3,621	253	3,283	19	650	0	0	0	19	295
2032	4.46%	302	4,808	279	3,899	253	3,535	19	650	0	0	0	19	314
2033	4.46%	302	5,110	279	4,178	253	3,788	19	650	0	0	0	19	333
2034	4.46%	302	5,412	279	4,457	253	4,041	19	650	0	0	0	19	352
2035	4.46%	302	5,714	279	4,735	253	4,293	19	650	0	0	0	19	372
2036	4.46%	302	6,016	279	5,014	253	4,546	19	650	0	0	0	19	391
2037	4.46%	302	6,319	279	5,292	253	4,798	19	650	0	0	0	19	410
2038	4.46%	302	6,621	279	5,571	253	5,051	19	650	0	0	0	19	429
2039	2.23%	151	6,772	279	5,849	253	5,303	{39}	650	0	0	0	{39}	390
2040	0.00%	0	6,772	279	6,128	253	5,556	{97}	650	0	0	0	{97}	292
2041	0.00%	0	6,772	279	6,406	253	5,808	{97}	650	0	0	0	{97}	195
2042	0.00%	0	6,772	279	6,685	253	6,061	{97}	650	0	0	0	{97}	97
2043	0.00%	0	6,772	279	6,963	253	6,313	{97}	650	0	0	0	{97}	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	{177}
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	650
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Residential Power Savers Energy Audit Program

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
				END OF YEAR					
				NET PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	254	1	6,685	279	(176)	7,140	6,861	7,000
2020	7.22%	489	91	6,406	557	(85)	6,861	6,491	6,676
2021	6.68%	452	77	6,128	836	(8)	6,491	6,136	6,314
2022	6.18%	418	64	5,849	1,114	56	6,136	5,793	5,964
2023	5.71%	387	52	5,571	1,393	108	5,793	5,463	5,628
2024	5.29%	358	41	5,292	1,671	148	5,463	5,144	5,303
2025	4.89%	331	30	5,014	1,950	179	5,144	4,835	4,989
2026	4.52%	306	21	4,735	2,228	199	4,835	4,536	4,685
2027	4.46%	302	19	4,457	2,507	219	4,536	4,238	4,387
2028	4.46%	302	19	4,178	2,785	238	4,238	3,940	4,089
2029	4.46%	302	19	3,899	3,064	257	3,940	3,643	3,792
2030	4.46%	302	19	3,621	3,342	276	3,643	3,345	3,494
2031	4.46%	302	19	3,342	3,621	295	3,345	3,047	3,196
2032	4.46%	302	19	3,064	3,899	314	3,047	2,750	2,899
2033	4.46%	302	19	2,785	4,178	333	2,750	2,452	2,601
2034	4.46%	302	19	2,507	4,457	352	2,452	2,154	2,303
2035	4.46%	302	19	2,228	4,735	372	2,154	1,857	2,006
2036	4.46%	302	19	1,950	5,014	391	1,857	1,559	1,708
2037	4.46%	302	19	1,671	5,292	410	1,559	1,261	1,410
2038	4.46%	302	19	1,393	5,571	429	1,261	964	1,113
2039	2.23%	151	(39)	1,114	5,849	390	964	724	844
2040	0.00%	0	(97)	836	6,128	292	724	543	634
2041	0.00%	0	(97)	557	6,406	195	543	362	453
2042	0.00%	0	(97)	279	6,685	97	362	181	272
2043	0.00%	0	(97)	(0)	6,963	0	181	0	90

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	5,937	5,937	5,937
EQUITY AFUDC	650		
DEBT AFUDC	376	376	
CPI			834
TOTAL	6,963	6,313	6,771

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Power Savers Energy Efficiency Program

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	36,026	1,119	0	2,514	1,659	607	214	1,405	3	7,521	7,521	7,521	35,134
2020	34,617	1,075	0	2,416	1,140	582	220	1,405	460	7,298	6,702	14,223	36,012
2021	32,752	1,017	0	2,286	1,129	557	225	1,405	388	7,008	5,911	20,134	36,913
2022	30,958	962	0	2,161	1,116	531	231	1,405	323	6,729	5,212	25,346	37,835
2023	29,230	908	0	2,040	1,102	506	237	1,405	261	6,459	4,595	29,941	38,781
2024	27,563	856	0	1,924	1,085	481	242	1,405	205	6,199	4,050	33,991	39,751
2025	25,953	806	0	1,811	1,067	455	249	1,405	153	5,946	3,568	37,558	40,745
2026	24,395	758	0	1,702	1,047	430	255	1,405	104	5,702	3,142	40,700	41,763
2027	22,885	711	0	1,597	989	405	261	1,405	97	5,465	2,765	43,466	42,807
2028	21,383	664	0	1,492	923	379	268	1,405	96	5,229	2,430	45,896	43,877
2029	19,881	618	0	1,387	857	354	274	1,405	97	4,993	2,131	48,027	44,974
2030	18,379	571	0	1,283	791	329	281	1,405	96	4,757	1,865	49,891	46,099
2031	16,878	524	0	1,178	726	304	288	1,405	97	4,521	1,628	51,519	47,251
2032	15,376	478	0	1,073	660	278	295	1,405	96	4,286	1,417	52,936	48,433
2033	13,874	431	0	968	594	253	303	1,405	97	4,051	1,230	54,166	49,643
2034	12,372	384	0	863	528	228	310	1,405	96	3,816	1,064	55,230	50,884
2035	10,870	338	0	759	462	202	318	1,405	97	3,581	917	56,147	52,157
2036	9,368	291	0	654	397	177	326	1,405	96	3,346	787	56,934	53,460
2037	7,867	244	0	549	331	152	334	1,405	97	3,112	672	57,606	54,797
2038	6,365	198	0	444	265	126	343	1,405	96	2,878	571	58,177	56,167
2039	4,863	151	0	339	199	101	351	1,405	(197)	2,644	482	58,659	57,571
2040	3,655	114	0	255	134	76	360	1,405	(492)	2,452	410	59,069	59,010
2041	2,741	85	0	191	694	51	369	1,405	(492)	2,304	354	59,423	60,486
2042	1,827	57	0	128	654	25	378	1,405	(492)	2,156	304	59,727	61,998
2043	913	28	0	64	614	0	388	1,405	(492)	2,008	260	59,987	63,548

IN SERVICE COST (\$000)	35,134
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Residential Power Savers Energy Efficiency Program

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	1,281	1,281	1,405	1,405	1,274	1,274	3	3,279	0	0	0	3	(889)
2020	7.22%	2,466	3,748	1,405	2,811	1,274	2,548	460	3,279	0	0	0	460	(429)
2021	6.68%	2,281	6,029	1,405	4,216	1,274	3,823	388	3,279	0	0	0	388	(40)
2022	6.18%	2,111	8,140	1,405	5,621	1,274	5,097	323	3,279	0	0	0	323	283
2023	5.71%	1,952	10,092	1,405	7,027	1,274	6,371	261	3,279	0	0	0	261	544
2024	5.29%	1,806	11,898	1,405	8,432	1,274	7,645	205	3,279	0	0	0	205	749
2025	4.89%	1,670	13,568	1,405	9,838	1,274	8,919	153	3,279	0	0	0	153	902
2026	4.52%	1,545	15,113	1,405	11,243	1,274	10,193	104	3,279	0	0	0	104	1,006
2027	4.46%	1,524	16,637	1,405	12,648	1,274	11,468	97	3,279	0	0	0	97	1,103
2028	4.46%	1,524	18,162	1,405	14,054	1,274	12,742	96	3,279	0	0	0	96	1,199
2029	4.46%	1,524	19,686	1,405	15,459	1,274	14,016	97	3,279	0	0	0	97	1,296
2030	4.46%	1,524	21,210	1,405	16,864	1,274	15,290	96	3,279	0	0	0	96	1,392
2031	4.46%	1,524	22,735	1,405	18,270	1,274	16,564	97	3,279	0	0	0	97	1,489
2032	4.46%	1,524	24,259	1,405	19,675	1,274	17,839	96	3,279	0	0	0	96	1,585
2033	4.46%	1,524	25,783	1,405	21,080	1,274	19,113	97	3,279	0	0	0	97	1,682
2034	4.46%	1,524	27,307	1,405	22,486	1,274	20,387	96	3,279	0	0	0	96	1,778
2035	4.46%	1,524	28,832	1,405	23,891	1,274	21,661	97	3,279	0	0	0	97	1,875
2036	4.46%	1,524	30,356	1,405	25,296	1,274	22,935	96	3,279	0	0	0	96	1,971
2037	4.46%	1,524	31,880	1,405	26,702	1,274	24,209	97	3,279	0	0	0	97	2,068
2038	4.46%	1,524	33,405	1,405	28,107	1,274	25,484	96	3,279	0	0	0	96	2,164
2039	2.23%	762	34,167	1,405	29,513	1,274	26,758	(197)	3,279	0	0	0	(197)	1,966
2040	0.00%	0	34,167	1,405	30,918	1,274	28,032	(492)	3,279	0	0	0	(492)	1,475
2041	0.00%	0	34,167	1,405	32,323	1,274	29,306	(492)	3,279	0	0	0	(492)	983
2042	0.00%	0	34,167	1,405	33,729	1,274	30,580	(492)	3,279	0	0	0	(492)	492
2043	0.00%	0	34,167	1,405	35,134	1,274	31,855	(492)	3,279	0	0	0	(492)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(892)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	3,279
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PROGRAM METHOD SELECTED: REV_REQ

PROGRAM NAME: Residential Power Savers Energy Efficiency Program

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
				END OF YEAR NET			BEGINNING	ENDING OF	
	TAX DEPRECIATION	TAX DEPRECIATION	DEFERRED TAX	PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	YEAR RATE BASE	YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	1,281	3	33,729	1,405	(889)	36,026	34,617	35,321
2020	7.22%	2,466	460	32,323	2,811	(429)	34,617	32,752	33,685
2021	6.68%	2,281	388	30,918	4,216	(40)	32,752	30,958	31,855
2022	6.18%	2,111	323	29,513	5,621	283	30,958	29,230	30,094
2023	5.71%	1,952	261	28,107	7,027	544	29,230	27,563	28,397
2024	5.29%	1,806	205	26,702	8,432	749	27,563	25,953	26,758
2025	4.89%	1,670	153	25,296	9,838	902	25,953	24,395	25,174
2026	4.52%	1,545	104	23,891	11,243	1,006	24,395	22,885	23,640
2027	4.46%	1,524	97	22,486	12,648	1,103	22,885	21,383	22,134
2028	4.46%	1,524	96	21,080	14,054	1,199	21,383	19,881	20,632
2029	4.46%	1,524	97	19,675	15,459	1,296	19,881	18,379	19,130
2030	4.46%	1,524	96	18,270	16,864	1,392	18,379	16,878	17,628
2031	4.46%	1,524	97	16,864	18,270	1,489	16,878	15,376	16,127
2032	4.46%	1,524	96	15,459	19,675	1,585	15,376	13,874	14,625
2033	4.46%	1,524	97	14,054	21,080	1,682	13,874	12,372	13,123
2034	4.46%	1,524	96	12,648	22,486	1,778	12,372	10,870	11,621
2035	4.46%	1,524	97	11,243	23,891	1,875	10,870	9,368	10,119
2036	4.46%	1,524	96	9,838	25,296	1,971	9,368	7,867	8,617
2037	4.46%	1,524	97	8,432	26,702	2,068	7,867	6,365	7,116
2038	4.46%	1,524	96	7,027	28,107	2,164	6,365	4,863	5,614
2039	2.23%	762	(197)	5,621	29,513	1,966	4,863	3,655	4,259
2040	0.00%	0	(492)	4,216	30,918	1,475	3,655	2,741	3,198
2041	0.00%	0	(492)	2,811	32,323	983	2,741	1,827	2,284
2042	0.00%	0	(492)	1,405	33,729	492	1,827	913	1,370
2043	0.00%	0	(492)	0	35,134	0	913	0	457

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	29,958	29,958	29,958
EQUITY AFUDC	3,279		
DEBT AFUDC	1,897	1,897	
CPI			4,208
TOTAL	35,134	31,855	34,166

* Column not specified in workbook

Staff's 1st Data Request #1

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Refrigerator Replacement

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	PRESENT		(14)	
										TOTAL	REPLACEMENT		
BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	FIXED	WORTH	CUMULATIVE	COST BASIS	
YEAR	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	CHARGES	FIXED	FOR	
	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	PROPERTY INSURANCE	
												\$(000)	
2019	7,865	244	0	549	362	133	47	307	1	1,642	1,642	1,642	7,670
2020	7,557	235	0	527	249	127	48	307	100	1,593	1,463	3,105	7,862
2021	7,150	222	0	499	247	121	49	307	85	1,530	1,290	4,395	8,058
2022	6,758	210	0	472	244	116	50	307	71	1,469	1,138	5,533	8,260
2023	6,381	198	0	445	241	110	52	307	57	1,410	1,003	6,536	8,466
2024	6,017	187	0	420	237	105	53	307	45	1,353	884	7,420	8,678
2025	5,666	176	0	395	233	99	54	307	33	1,298	779	8,199	8,895
2026	5,326	165	0	372	229	94	56	307	23	1,245	686	8,885	9,117
2027	4,996	155	0	349	216	88	57	307	21	1,193	604	9,489	9,345
2028	4,668	145	0	326	202	83	58	307	21	1,141	530	10,019	9,579
2029	4,340	135	0	303	187	77	60	307	21	1,090	465	10,485	9,818
2030	4,012	125	0	280	173	72	61	307	21	1,038	407	10,892	10,064
2031	3,685	114	0	257	158	66	63	307	21	987	355	11,247	10,315
2032	3,357	104	0	234	144	61	64	307	21	936	309	11,556	10,573
2033	3,029	94	0	211	130	55	66	307	21	884	269	11,825	10,838
2034	2,701	84	0	188	115	50	68	307	21	833	232	12,057	11,109
2035	2,373	74	0	166	101	44	69	307	21	782	200	12,257	11,386
2036	2,045	64	0	143	87	39	71	307	21	731	172	12,429	11,671
2037	1,717	53	0	120	72	33	73	307	21	679	147	12,576	11,963
2038	1,389	43	0	97	58	28	75	307	21	628	125	12,701	12,262
2039	1,062	33	0	74	108	22	77	307	(43)	577	105	12,806	12,568
2040	798	25	0	56	160	17	79	307	(107)	535	90	12,895	12,882
2041	598	19	0	42	152	11	81	307	(107)	503	77	12,973	13,205
2042	399	12	0	28	143	6	83	307	(107)	471	66	13,039	13,535
2043	199	6	0	14	134	(0)	85	307	(107)	438	57	13,096	13,873

IN SERVICE COST (\$000)	7,670
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST
DEBT	44%	7.03 %
P/S	0%	0.00 %
C/S	56%	12.50 %

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV REQ

PROGRAM NAME: Residential Refrigerator Replacement

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	280	280	307	307	278	278	1	716	0	0	0	1	(194)
2020	7.22%	538	818	307	614	278	556	100	716	0	0	0	100	(94)
2021	6.68%	498	1,316	307	920	278	834	85	716	0	0	0	85	(9)
2022	6.18%	461	1,777	307	1,227	278	1,113	71	716	0	0	0	71	62
2023	5.71%	426	2,203	307	1,534	278	1,391	57	716	0	0	0	57	119
2024	5.29%	394	2,597	307	1,841	278	1,669	45	716	0	0	0	45	164
2025	4.89%	365	2,962	307	2,148	278	1,947	33	716	0	0	0	33	197
2026	4.52%	337	3,299	307	2,454	278	2,225	23	716	0	0	0	23	220
2027	4.46%	333	3,632	307	2,761	278	2,503	21	716	0	0	0	21	241
2028	4.46%	333	3,965	307	3,068	278	2,782	21	716	0	0	0	21	262
2029	4.46%	333	4,298	307	3,375	278	3,060	21	716	0	0	0	21	283
2030	4.46%	333	4,630	307	3,682	278	3,338	21	716	0	0	0	21	304
2031	4.46%	333	4,963	307	3,988	278	3,616	21	716	0	0	0	21	325
2032	4.46%	333	5,296	307	4,295	278	3,894	21	716	0	0	0	21	346
2033	4.46%	333	5,629	307	4,602	278	4,172	21	716	0	0	0	21	367
2034	4.46%	333	5,961	307	4,909	278	4,451	21	716	0	0	0	21	388
2035	4.46%	333	6,294	307	5,216	278	4,729	21	716	0	0	0	21	409
2036	4.46%	333	6,627	307	5,522	278	5,007	21	716	0	0	0	21	430
2037	4.46%	333	6,960	307	5,829	278	5,285	21	716	0	0	0	21	451
2038	4.46%	333	7,293	307	6,136	278	5,563	21	716	0	0	0	21	472
2039	2.23%	166	7,459	307	6,443	278	5,841	(43)	716	0	0	0	(43)	429
2040	0.00%	0	7,459	307	6,750	278	6,120	(107)	716	0	0	0	(107)	322
2041	0.00%	0	7,459	307	7,056	278	6,398	(107)	716	0	0	0	(107)	215
2042	0.00%	0	7,459	307	7,363	278	6,676	(107)	716	0	0	0	(107)	107
2043	0.00%	0	7,459	307	7,670	278	6,954	(107)	716	0	0	0	(107)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(195)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	716
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

page 4b

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Refrigerator Replacement

PSC FORM CE 1.1A
 PAGE 26 OF 2

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	END	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
				OF YEAR					
				NET PLANT IN SERVICE \$(000)					
2019	3.75%	280	1	7,363	307	(194)	7,865	7,557	7,711
2020	7.22%	538	100	7,056	614	(94)	7,557	7,150	7,354
2021	6.68%	498	85	6,750	920	(9)	7,150	6,758	6,954
2022	6.18%	461	71	6,443	1,227	62	6,758	6,381	6,570
2023	5.71%	426	57	6,136	1,534	119	6,381	6,017	6,199
2024	5.29%	394	45	5,829	1,841	164	6,017	5,666	5,842
2025	4.89%	365	33	5,522	2,148	197	5,666	5,326	5,496
2026	4.52%	337	23	5,216	2,454	220	5,326	4,996	5,161
2027	4.46%	333	21	4,909	2,761	241	4,996	4,668	4,832
2028	4.46%	333	21	4,602	3,068	262	4,668	4,340	4,504
2029	4.46%	333	21	4,295	3,375	283	4,340	4,012	4,176
2030	4.46%	333	21	3,988	3,682	304	4,012	3,685	3,848
2031	4.46%	333	21	3,682	3,988	325	3,685	3,357	3,521
2032	4.46%	333	21	3,375	4,295	346	3,357	3,029	3,193
2033	4.46%	333	21	3,068	4,602	367	3,029	2,701	2,865
2034	4.46%	333	21	2,761	4,909	388	2,701	2,373	2,537
2035	4.46%	333	21	2,454	5,216	409	2,373	2,045	2,209
2036	4.46%	333	21	2,148	5,522	430	2,045	1,717	1,881
2037	4.46%	333	21	1,841	5,829	451	1,717	1,389	1,553
2038	4.46%	333	21	1,534	6,136	472	1,389	1,062	1,226
2039	2.23%	166	(43)	1,227	6,443	429	1,062	798	930
2040	0.00%	0	(107)	920	6,750	322	798	598	698
2041	0.00%	0	(107)	614	7,056	215	598	399	499
2042	0.00%	0	(107)	307	7,363	107	399	199	299
2043	0.00%	0	(107)	(0)	7,670	0	199	0	100

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	6,540	6,540	6,540
EQUITY AFUDC	716		
DEBT AFUDC	414	414	
CPI			919
TOTAL	7,670	6,954	7,459

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Solar Water Heating (Low Income New Construction)

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	296	9	0	21	14	5	2	12	0	62	62	62	289
2020	285	9	0	20	9	5	2	12	4	60	55	117	296
2021	269	8	0	19	9	5	2	12	3	58	49	166	304
2022	255	8	0	18	9	4	2	12	3	55	43	208	311
2023	240	7	0	17	9	4	2	12	2	53	38	246	319
2024	227	7	0	16	9	4	2	12	2	51	33	279	327
2025	213	7	0	15	9	4	2	12	1	49	29	309	335
2026	201	6	0	14	9	4	2	12	1	47	26	335	343
2027	188	6	0	13	8	3	2	12	1	45	23	357	352
2028	176	5	0	12	8	3	2	12	1	43	20	377	361
2029	163	5	0	11	7	3	2	12	1	41	18	395	370
2030	151	5	0	11	7	3	2	12	1	39	15	410	379
2031	139	4	0	10	6	2	2	12	1	37	13	424	389
2032	126	4	0	9	5	2	2	12	1	35	12	435	398
2033	114	4	0	8	5	2	2	12	1	33	10	445	408
2034	102	3	0	7	4	2	3	12	1	31	9	454	418
2035	89	3	0	6	4	2	3	12	1	29	8	462	429
2036	77	2	0	5	3	1	3	12	1	28	6	468	440
2037	65	2	0	5	3	1	3	12	1	26	6	474	451
2038	52	2	0	4	2	1	3	12	1	24	5	478	462
2039	40	1	0	3	4	1	3	12	(2)	22	4	482	473
2040	30	1	0	2	6	1	3	12	(4)	20	3	486	485
2041	23	1	0	2	6	0	3	12	(4)	19	3	489	497
2042	15	0	0	1	5	0	3	12	(4)	18	3	491	510
2043	8	0	0	1	5	0	3	12	(4)	17	2	493	523

IN SERVICE COST (\$000)	289
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Solar Water Heating (Low Income New Construction)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	11	11	12	12	10	10	0	27	0	0	0	0	(7)
2020	7.22%	20	31	12	23	10	21	4	27	0	0	0	4	(4)
2021	6.68%	19	50	12	35	10	31	3	27	0	0	0	3	(0)
2022	6.18%	17	67	12	46	10	42	3	27	0	0	0	3	2
2023	5.71%	16	83	12	58	10	52	2	27	0	0	0	2	4
2024	5.29%	15	98	12	69	10	63	2	27	0	0	0	2	6
2025	4.89%	14	112	12	81	10	73	1	27	0	0	0	1	7
2026	4.52%	13	124	12	92	10	84	1	27	0	0	0	1	8
2027	4.16%	13	137	12	104	10	94	1	27	0	0	0	1	9
2028	4.46%	13	149	12	116	10	105	1	27	0	0	0	1	10
2029	4.46%	13	162	12	127	10	115	1	27	0	0	0	1	11
2030	4.46%	13	174	12	139	10	126	1	27	0	0	0	1	11
2031	4.46%	13	187	12	150	10	136	1	27	0	0	0	1	12
2032	4.46%	13	199	12	162	10	147	1	27	0	0	0	1	13
2033	4.46%	13	212	12	173	10	157	1	27	0	0	0	1	14
2034	4.46%	13	225	12	185	10	168	1	27	0	0	0	1	15
2035	4.46%	13	237	12	196	10	178	1	27	0	0	0	1	15
2036	4.46%	13	250	12	208	10	189	1	27	0	0	0	1	16
2037	4.46%	13	262	12	220	10	199	1	27	0	0	0	1	17
2038	4.46%	13	275	12	231	10	210	1	27	0	0	0	1	18
2039	2.23%	6	281	12	243	10	220	(2)	27	0	0	0	(2)	16
2040	0.00%	0	281	12	254	10	230	(4)	27	0	0	0	(4)	12
2041	0.00%	0	281	12	266	10	241	(4)	27	0	0	0	(4)	8
2042	0.00%	0	281	12	277	10	251	(4)	27	0	0	0	(4)	4
2043	0.00%	0	281	12	289	10	262	(4)	27	0	0	0	(4)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(7)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	27
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

page 4b

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PSC FORM CE 1.1A

PROGRAM METHOD SELECTED: REV_REQ

PAGE 2b OF 2

PROGRAM NAME: Residential Solar Water Heating (Low Income New Construction)

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END OF YEAR									
NET PLANT IN SERVICE									
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	11	0	277	12	(7)	296	285	290
2020	7.22%	20	4	266	23	(4)	285	269	277
2021	6.68%	19	3	254	35	(0)	269	255	262
2022	6.18%	17	3	243	46	2	255	240	247
2023	5.71%	16	2	231	58	4	240	227	233
2024	5.29%	15	2	220	69	6	227	213	220
2025	4.89%	14	1	208	81	7	213	201	207
2026	4.52%	13	1	196	92	8	201	188	194
2027	4.46%	13	1	185	104	9	188	176	182
2028	4.46%	13	1	173	116	10	176	163	170
2029	4.46%	13	1	162	127	11	163	151	157
2030	4.46%	13	1	150	139	11	151	139	145
2031	4.46%	13	1	139	150	12	139	126	133
2032	4.46%	13	1	127	162	13	126	114	120
2033	4.46%	13	1	116	173	14	114	102	108
2034	4.46%	13	1	104	185	15	102	89	96
2035	4.46%	13	1	92	196	15	89	77	83
2036	4.46%	13	1	81	208	16	77	65	71
2037	4.46%	13	1	69	220	17	65	52	59
2038	4.46%	13	1	58	231	18	52	40	46
2039	2.23%	6	(2)	46	243	16	40	30	35
2040	0.00%	0	(4)	35	254	12	30	23	26
2041	0.00%	0	(4)	23	266	8	23	15	19
2042	0.00%	0	(4)	12	277	4	15	8	11
2043	0.00%	0	(4)	0	289	0	8	0	4

* Column not specified in workbook

Staffs 1st Data Request #1 - Revised

(1)	(2)	(3)	(4)	(5)	(6)	(7)
NO YEARS BEFORE IN-SERVICE	ESCALATION RATE	ESCALATION FACTOR	ESCALATION YEARLY EXPENDITURE (%)	ANNUAL SPENDING (\$/KW)	CUMULATIVE ANNUAL SPENDING (\$/KW)	CUMULATIVE AVERAGE SPENDING (\$/KW)
2009	0.00%	1.000	0.00%	0.00	0.00	0.00
2010	3.00%	1.030	0.00%	0.00	0.00	0.00
2011	3.00%	1.061	0.00%	0.00	0.00	0.00
2012	3.00%	1.093	0.00%	0.00	0.00	0.00
2013	3.00%	1.126	0.15%	1.24	0.62	0.62
2014	3.00%	1.159	1.90%	15.99	9.24	9.24
2015	3.00%	1.194	4.57%	39.61	37.03	37.03
2016	3.00%	1.230	37.20%	331.87	222.77	222.77
2017	3.00%	1.267	45.74%	420.27	598.84	598.84
2018	3.00%	1.305	10.44%	98.79	858.38	858.38

100.00% 907.77

YEAR	IN-SERVICE BEFORE NO YEARS SPENDING CUMULATIVE (\$/KW)	DEBT WITH AFUDC (\$/KW)	DEBT (\$/KW)	CUMULATIVE DEBT (\$/KW)	YEARLY TOTAL AFUDC (\$/KW)	CUMULATIVE TOTAL AFUDC (\$/KW)	CONSTRUCTION PERIOD INTEREST (\$/KW)	CUMULATIVE CONSTRUCTION INTEREST (\$/KW)	CUMULATIVE CPI (\$/KW)	DEFERRED TAXES (\$/KW)	DEFERRED TAXES (\$/KW)	CUMULATIVE DEFERRED TAXES (\$/KW)	INCREMENTAL YEAR-END BOOK VALUE (\$/KW)	CUMULATIVE YEAR-END BOOK VALUE (\$/KW)
	(8)	(8a)	(8b)	(9)	(9)	(9a)	(9b)	(9c)	(9d)	(9e)	(9f)	(9g)	(10)	(11)
2009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	0.00	0.00	0.02	0.02	0.02	0.02	0.04	0.04	0.04	0.01	0.01	0.01	0.00	0.00
2014	9.29	9.29	0.29	0.30	0.79	0.84	0.65	0.70	0.14	0.15	0.15	0.15	16.78	18.07
2015	37.87	37.87	1.18	1.49	3.22	4.06	2.65	3.35	0.57	0.72	0.72	0.72	42.83	60.90
2016	226.84	226.84	7.07	19.29	23.36	23.36	15.90	19.25	4.13	13.39	13.39	13.39	351.16	412.06
2017	622.20	622.20	28.01	53.10	76.45	76.45	43.47	62.72	9.26	13.63	13.63	13.63	473.37	885.43
2018	934.83	934.83	57.47	80.39	156.84	156.84	64.78	127.50	13.63	27.02	27.02	27.02	179.18	1,064.61

57.47 156.84 127.50 (27.02) 1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805.5
AFUDC RATE	8.48%

CONSTRUCTION CASH	246	246	246
EQUITY AFUDC	27	16	16
DEBT AFUDC	16	16	16
CPI	35	262	281
TOTAL	289	262	281

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Solar Water Heating

YEAR	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	7,507	233	0	524	346	127	45	293	1	1,567	1,567	1,567	7,321
2020	7,214	224	0	503	237	121	46	293	96	1,521	1,397	2,964	7,504
2021	6,825	212	0	476	235	116	47	293	81	1,460	1,232	4,195	7,692
2022	6,451	200	0	450	233	111	48	293	67	1,402	1,086	5,282	7,884
2023	6,091	189	0	425	230	105	49	293	54	1,346	957	6,239	8,081
2024	5,744	178	0	401	226	100	51	293	43	1,292	844	7,083	8,283
2025	5,408	168	0	377	222	95	52	293	32	1,239	743	7,826	8,490
2026	5,083	158	0	355	218	90	53	293	22	1,188	655	8,481	8,703
2027	4,769	148	0	333	206	84	54	293	20	1,139	576	9,057	8,920
2028	4,456	138	0	311	192	79	56	293	20	1,090	506	9,564	9,143
2029	4,143	129	0	289	179	74	57	293	20	1,040	444	10,008	9,372
2030	3,830	119	0	267	165	69	59	293	20	991	389	10,396	9,606
2031	3,517	109	0	245	151	63	60	293	20	942	339	10,735	9,846
2032	3,204	100	0	224	137	58	62	293	20	893	295	11,031	10,092
2033	2,891	90	0	202	124	53	63	293	20	844	256	11,287	10,345
2034	2,578	80	0	180	110	47	65	293	20	795	222	11,509	10,603
2035	2,265	70	0	158	96	42	66	293	20	746	191	11,700	10,868
2036	1,952	61	0	136	83	37	68	293	20	697	164	11,864	11,140
2037	1,639	51	0	114	69	32	70	293	20	648	140	12,004	11,419
2038	1,326	41	0	93	55	26	71	293	20	600	119	12,123	11,704
2039	1,013	31	0	71	103	21	73	293	(41)	551	100	12,223	11,997
2040	762	24	0	53	153	16	75	293	(102)	511	85	12,309	12,296
2041	571	18	0	40	145	11	77	293	(102)	480	74	12,382	12,604
2042	381	12	0	27	136	5	79	293	(102)	449	63	12,446	12,919
2043	190	6	0	13	128	(0)	81	293	(102)	418	54	12,500	13,242

IN SERVICE COST (\$000)	7,321
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

Staff's 1st Data Request #1 - Revised

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Solar Water Heating

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX	TAX	ACCUMULATED	BOOK	ACCUMULATED	BOOK	ACCUMULATED	DEFERRED	TOTAL	BOOK DEPR	(10)*(11)	SALVAGE	ANNUAL	ACCUMULATED
	DEPRECIATION	DEPRECIATION	TAX	DEPRECIATION	BOOK	BOOK	DEPRECIATION	TAX	AFUDC	RATE	TAX RATE	TAX RATE	DEFERRED TAX	DEFERRED
	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	DEFERRED TAX	DEFERRED TAX	\$(000)	MINUS 1/LIFE	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	267	267	293	293	266	266	266	1	683	0	0	1	(185)
2020	7.22%	514	781	293	586	266	531	96	683	0	0	0	96	(89)
2021	6.68%	475	1,256	293	879	266	797	81	683	0	0	0	81	(8)
2022	6.18%	440	1,696	293	1,171	266	1,062	67	683	0	0	0	67	59
2023	5.71%	407	2,103	293	1,464	266	1,328	54	683	0	0	0	54	113
2024	5.29%	376	2,479	293	1,757	266	1,593	43	683	0	0	0	43	156
2025	4.89%	348	2,827	293	2,050	266	1,859	32	683	0	0	0	32	188
2026	4.52%	322	3,149	293	2,343	266	2,124	22	683	0	0	0	22	210
2027	4.46%	318	3,467	293	2,636	266	2,390	20	683	0	0	0	20	230
2028	4.46%	318	3,784	293	2,928	266	2,655	20	683	0	0	0	20	250
2029	4.46%	318	4,102	293	3,221	266	2,921	20	683	0	0	0	20	270
2030	4.46%	318	4,420	293	3,514	266	3,186	20	683	0	0	0	20	290
2031	4.46%	318	4,737	293	3,807	266	3,452	20	683	0	0	0	20	310
2032	4.46%	318	5,055	293	4,100	266	3,717	20	683	0	0	0	20	330
2033	4.46%	318	5,373	293	4,393	266	3,983	20	683	0	0	0	20	350
2034	4.46%	318	5,690	293	4,686	266	4,248	20	683	0	0	0	20	370
2035	4.46%	318	6,008	293	4,978	266	4,514	20	683	0	0	0	20	391
2036	4.46%	318	6,326	293	5,271	266	4,779	20	683	0	0	0	20	411
2037	4.46%	318	6,643	293	5,564	266	5,045	20	683	0	0	0	20	431
2038	4.46%	318	6,961	293	5,857	266	5,310	20	683	0	0	0	20	451
2039	2.23%	159	7,120	293	6,150	266	5,576	(41)	683	0	0	0	(41)	410
2040	0.00%	0	7,120	293	6,443	266	5,841	(102)	683	0	0	0	(102)	307
2041	0.00%	0	7,120	293	6,735	266	6,107	(102)	683	0	0	0	(102)	205
2042	0.00%	0	7,120	293	7,028	266	6,372	(102)	683	0	0	0	(102)	103
2043	0.00%	0	7,120	293	7,321	266	6,638	(102)	683	0	0	0	(102)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(186)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	683
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

Staff's 1st Data Request #1 - Revised

page 4b

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION

PSC FORM CE 1.1A

PROGRAM METHOD SELECTED: REV_REQ

PAGE 2b OF 2

PROGRAM NAME: Residential Solar Water Heating

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
END OF YEAR									
NET									
	TAX DEPRECIATION	TAX DEPRECIATION	DEFERRED TAX	PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
YEAR	SCHEDULE	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	267	1	7,028	293	(185)	7,507	7,214	7,360
2020	7.22%	514	96	6,735	586	(89)	7,214	6,825	7,019
2021	6.68%	475	81	6,443	879	(8)	6,825	6,451	6,638
2022	6.18%	440	67	6,150	1,171	59	6,451	6,091	6,271
2023	5.71%	407	54	5,857	1,464	113	6,091	5,744	5,917
2024	5.29%	376	43	5,564	1,757	156	5,744	5,408	5,576
2025	4.89%	348	32	5,271	2,050	188	5,408	5,083	5,246
2026	4.52%	322	22	4,978	2,343	210	5,083	4,769	4,926
2027	4.46%	318	20	4,686	2,636	230	4,769	4,456	4,612
2028	4.46%	318	20	4,393	2,928	250	4,456	4,143	4,299
2029	4.46%	318	20	4,100	3,221	270	4,143	3,830	3,986
2030	4.46%	318	20	3,807	3,514	290	3,830	3,517	3,673
2031	4.46%	318	20	3,514	3,807	310	3,517	3,204	3,360
2032	4.46%	318	20	3,221	4,100	330	3,204	2,891	3,047
2033	4.46%	318	20	2,928	4,393	350	2,891	2,578	2,735
2034	4.46%	318	20	2,636	4,686	370	2,578	2,265	2,422
2035	4.46%	318	20	2,343	4,978	391	2,265	1,952	2,109
2036	4.46%	318	20	2,050	5,271	411	1,952	1,639	1,796
2037	4.46%	318	20	1,757	5,564	431	1,639	1,326	1,483
2038	4.46%	318	20	1,464	5,857	451	1,326	1,013	1,170
2039	2.23%	159	(41)	1,171	6,150	410	1,013	762	887
2040	0.00%	0	(102)	879	6,443	307	762	571	666
2041	0.00%	0	(102)	586	6,735	205	571	381	476
2042	0.00%	0	(102)	293	7,028	103	381	190	286
2043	0.00%	0	(102)	(0)	7,321	0	190	0	95

* Column not specified in workbook

Staff's 1st Data Request #1 - Revised

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAF	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	6,243	6,243	6,243
EQUITY AFUDC	683		
DEBT AFUDC	395	395	
CPI			877
TOTAL	7,321	6,638	7,119

* Column not specified in workbook

Q.

For the following questions (2-5), please provide the name of each program, indicate the customer category of the program, and whether it represents an energy efficiency, demand response, or renewable program. Please include all programs on a single table, adding columns as necessary.

Please provide, on an individual program basis, the cumulative projected savings over the period 2010 through 2019. As part of this response, please also provide the percentage of the Commission's Authorized Goals and the Company's proposed demand and energy savings met by the program. Please complete the table below and provide an electronic copy in Excel (.xls file format) with the hard copy response.

Program Information - Savings		
Program Name	-	
Customer Category	(Res/Com/Ind)	
Program Type	(EE/ DR/ RE)	
Program Estimate		
Summer Demand	(MW)	
Winter Demand	(MW)	
Annual Energy	(GWh)	
% of Commission Authorized Goal		
Summer Demand	(%)	
Winter Demand	(%)	
Annual Energy	(%)	

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Please see Table - Staff's 1st Data Request No. 2 - Revised for the requested information.

Residential								
Program Information			Program Estimate			% of Commission Authorized Residential Goal		
Program Name	Customer Category	Program Type	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)
Residential Low Income Weatherization	Residential	EE	3.8	0.0	7.9	0.4%	0.0%	0.5%
Residential Power Savers Energy Audit	Residential	EE	5.0	11.6	66.6	0.6%	2.4%	3.9%
Residential Power Savers Energy Efficiency	Residential	EE	30.9	27.8	71.5	3.4%	5.8%	4.2%
Residential Solar Water Heating	Residential	RE	5.0	10.2	33.1	0.6%	2.1%	2.0%
Residential Solar Water Heating (Low Income New Construction)	Residential	RE	0.2	0.4	1.3	0.0%	0.1%	0.1%
Residential Photovoltaics	Residential	RE	2.7	0.1	8.5	0.3%	0.0%	0.5%
Residential Home Energy Survey	Residential	EE	N/A	N/A	N/A	N/A	N/A	N/A
Residential Air Conditioning	Residential	EE	454.2	218.2	852.2	50.5%	45.5%	50.3%
Residential Duct System Testing & Repair	Residential	EE	86.8	101.8	163.3	9.7%	21.2%	9.6%
Residential Building Envelope	Residential	EE	149.1	89.3	311.7	16.6%	18.6%	18.4%
Residential New Construction (BuildSmart®)	Residential	EE	82.2	38.5	129.0	9.1%	8.0%	7.6%
Residential Load Management (On Call)	Residential	DR	62.2	56.8	1.0	6.9%	11.8%	0.1%
Residential Air-Conditioning Tune-Up & Maintenance	Residential	EE	23.7	0.0	39.7	2.6%	0.0%	2.3%
Residential Refrigerator Replacement	Residential	EE	6.0	5.5	17.9	0.7%	1.2%	1.1%

Commercial/Industrial								
Program Information			Program Estimate			% of Commission Authorized Commercial/Industrial Goal		
Program Name	Customer Category	Program Type	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)
Business Solar Water Heating	Commercial/Industrial	RE	0.3	0.0	1.0	0.0%	0.0%	0.1%
Business Photovoltaics	Commercial/Industrial	RE	2.3	0.1	7.2	0.4%	0.1%	0.5%
Business Photovoltaics for Schools	Commercial/Industrial	RE	0.2	0.0	0.6	0.0%	0.0%	0.0%
Business Energy Evaluation	Commercial/Industrial	EE	N/A	N/A	N/A	N/A	N/A	N/A
Business Heating, Ventilating & Air-Conditioning (HVAC)	Commercial/Industrial	EE	173.5	238.8	682.4	29.0%	188.8%	49.2%
Business Lighting	Commercial/Industrial	EE	83.5	55.2	292.4	14.0%	43.6%	21.1%
Business Refrigeration	Commercial/Industrial	EE	9.4	8.2	82.2	1.6%	6.5%	5.9%
Business Building Envelope	Commercial/Industrial	EE	136.9	10.5	267.0	22.9%	8.3%	19.3%
Business Water Heating	Commercial/Industrial	EE	5.8	3.6	35.8	1.0%	2.9%	2.6%
Business Custom Incentive	Commercial/Industrial	EE	4.2	2.1	29.9	0.7%	1.6%	2.2%
Cogeneration & Small Power Production	Commercial/Industrial	EE	N/A	N/A	N/A	N/A	N/A	N/A
Business On Call	Commercial/Industrial	DR	40.0	0.0	0.0	6.7%	0.0%	0.0%
Commercial/Industrial Demand Reduction	Commercial/Industrial	DR	142.6	142.6	1.1	23.8%	112.7%	0.1%
Commercial/Industrial Load Control (Closed)	Commercial/Industrial	DR	N/A	N/A	N/A	N/A	N/A	N/A
Business Motors	Commercial/Industrial	EE	0.9	0.0	4.4	0.1%	0.0%	0.3%

Research & Development								
Program Information			Program Estimate			% of Commission Authorized Commercial/Industrial Goal		
Program Name	Customer Category	Program Type	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)
Solar Research and Demonstration	Res / Comm / Ind	RE	N/A	N/A	N/A	N/A	N/A	N/A
Conservation Research & Development	Res / Comm / Ind	EE / DR	N/A	N/A	N/A	N/A	N/A	N/A
Residential Two-Story Wind Washing Project	Res / Comm / Ind	EE / DR	N/A	N/A	N/A	N/A	N/A	N/A
Residential Proactive Energy Information Communications Research	Res / Comm / Ind	EE / DR	N/A	N/A	N/A	N/A	N/A	N/A
Business Building Retro-Commissioning Research Project	Res / Comm / Ind	EE / DR	N/A	N/A	N/A	N/A	N/A	N/A

Q.

For the following questions (2-5), please provide the name of each program, indicate the customer category of the program, and whether it represents an energy efficiency, demand response, or renewable program. Please include all programs on a single table, adding columns as necessary.

Please provide, on an individual program basis, the cumulative net present value of expenditures required over the period 2010 through 2019. Please indicate the type of expenditure, separating them into categories including administrative, marketing, equipment, operations & maintenance, and incentives/rebates to customers. As part of this response, please also provide the percentage that each category represents of the total program expenditures. Indicate the first year rate impact of these expenditures, percentage of the total Energy Conservation Cost Recovery Clause for the first year of these expenditures, and any lost revenues associated with the program. Please complete the table below and provide an electronic copy in Excel (.xls file format) with the hard copy response.

Program Information - Total Cost		
Program Name	-	
Customer Category	(Res/Com/Ind)	
Program Type	(EE / DR / RE)	
Program Cost (Cumulative NPV)		
Administrative	(\$)	
Education, Surveys, Marketing	(\$)	
Equipment, Installation, O&M	(\$)	
Incentives / Rebates	(\$)	
Total Cost	(\$)	
Program Cost (% of Program)		
Administrative	(%)	
Education, Surveys, Marketing	(%)	
Equipment, Installation, O&M	(%)	
Incentives / Rebates	(%)	
Program Rate Impact		
Residential Rate Impact	(\$/mo)	
Percentage of Total ECCR Rate	(%)	
Lost Revenues	(\$)	

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Please see Table - Staff's 1st Data Request No. 3 - Revised for the requested information.

FILED NUMBER DATE
5437 JUL -1 0
FPSC COMMISSION CLERK

Program Information			Program Cost (Cumulative NPV)					Program Cost (% of Program)				Program Rate Impact		
Program Name	Customer Category	Program	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact ⁽²⁾ (\$/mo)	% of Total ECCR Cost	Lost Revenues (\$) ⁽³⁾
Residential Low Income Weatherization	Residential	EE	1,315,739	196,006	0	2,352,333	3,864,077	34.1%	5.1%	0.0%	60.9%	0.01	0.15%	2,895,339
Residential Power Savers Energy Audit	Residential	EE	3,472,656	3,028,547	0	4,936,319	11,437,521	30.4%	26.5%	0.0%	43.2%	0.02	0.57%	21,679,497
Residential Power Savers Energy Efficiency	Residential	EE	3,066,410	737,438	0	34,611,923	38,415,771	8.0%	1.9%	0.0%	90.1%	0.08	2.19%	23,268,820
Residential Solar Water Heating	Residential	RE	2,905,512	734,106	0	15,691,603	19,331,221	15.0%	3.8%	0.0%	81.2%	0.07	1.90%	17,619,135
Residential Solar Water Heating (Low Income New Construction)	Residential	RE	393,185	86,695	0	3,074,550	3,554,430	11.1%	2.4%	0.0%	86.5%	0.01	0.38%	686,661
Business Solar Water Heating	Commercial/Industrial	RE	903,114	90,202	0	265,254	1,258,570	71.8%	7.2%	0.0%	21.1%	0.00	0.08%	516,653
Residential Photovoltaics	Residential	RE	1,299,439	436,364	0	9,029,934	10,765,737	12.1%	4.1%	0.0%	83.9%	0.04	1.09%	4,497,096
Business Photovoltaics	Commercial/Industrial	RE	1,206,015	362,565	0	6,831,739	8,400,719	14.4%	4.3%	0.0%	81.3%	0.03	0.79%	889,364
Business Photovoltaics for Schools	Commercial/Industrial	RE	320,511	285,002	4,883,969	0	5,489,482	5.8%	5.2%	89.0%	0.0%	0.01	0.16%	212,190
Solar Research and Demonstration	Res / Comm / Ind	RE	1,287,842	565,488	0	0	1,853,330	69.5%	30.5%	0.0%	0.0%	0.01	0.19%	0
Residential Home Energy Survey	Residential	EE	34,977,844	99,379,397	0	0	134,357,241	26.0%	74.0%	0.0%	0.0%	0.23	6.33%	0
Residential Air-Conditioning	Residential	EE	35,414,956	3,210,718	0	392,289,530	430,915,204	8.2%	0.7%	0.0%	91.0%	0.73	19.68%	326,477,800
Residential Duct System Testing & Repair	Residential	EE	26,643,226	3,964,279	0	40,222,828	70,830,333	37.6%	5.6%	0.0%	56.8%	0.09	2.37%	52,281,092
Residential Building Envelope	Residential	EE	9,905,320	2,556,462	0	104,467,679	116,929,461	8.5%	2.2%	0.0%	89.3%	0.15	3.92%	94,588,400
Residential New Construction (BuildSmart®)	Residential	EE	14,916,243	3,100,400	0	53,830,431	71,847,073	20.8%	4.3%	0.0%	74.9%	0.09	2.49%	40,060,505
Residential Load Management (On Call)	Residential	DR	41,064,868	3,527,491	30,151,986	307,729,903	382,474,248	10.7%	0.9%	7.9%	80.5%	0.75	20.36%	488,357
Residential Air-Conditioning Tune-Up & Maintenance	Residential	EE	5,613,087	1,608,911	0	3,187,924	10,409,922	53.9%	15.5%	0.0%	30.6%	0.01	0.35%	11,337,342
Residential Refrigerator Replacement	Residential	EE	5,389,443	1,675,444	0	8,973,670	16,038,556	33.6%	10.4%	0.0%	56.0%	0.03	0.90%	8,168,581
Business Energy Evaluation	Commercial/Industrial	EE	16,294,471	41,997,467	0	0	58,291,937	28.0%	72.0%	0.0%	0.0%	0.10	2.77%	0
Business Heating, Ventilating & Air-Conditioning (HVAC)	Commercial/Industrial	EE	9,472,682	477,372	0	142,903,801	152,853,855	6.2%	0.3%	0.0%	93.5%	0.30	8.18%	269,217,166
Business Lighting	Commercial/Industrial	EE	1,828,198	140,298	0	23,931,925	25,900,421	7.1%	0.5%	0.0%	92.4%	0.08	2.15%	96,426,130
Business Refrigeration	Commercial/Industrial	EE	1,110,904	68,954	0	3,088,132	4,267,990	26.0%	1.6%	0.0%	72.4%	0.01	0.35%	22,868,144
Business Building Envelope	Commercial/Industrial	EE	4,916,090	521,639	0	117,393,793	122,831,521	4.0%	0.4%	0.0%	95.6%	0.26	7.04%	118,440,154
Business Water Heating	Commercial/Industrial	EE	773,232	16,738	0	6,006,473	6,796,442	11.4%	0.2%	0.0%	88.4%	0.01	0.28%	11,832,692
Business Custom Incentive	Commercial/Industrial	EE	299,527	0	0	534,930	834,457	35.9%	0.0%	0.0%	64.1%	0.00	0.03%	7,631,267
Cogeneration & Small Power Production	Commercial/Industrial	EE	5,350,176	0	0	0	5,350,176	100.0%	0.0%	0.0%	0.0%	0.01	0.25%	0
Business On Call	Commercial/Industrial	DR	4,253,934	11,991	4,158,311	21,994,068	30,418,303	14.0%	0.0%	13.7%	72.3%	0.05	1.33%	13,629
Commercial/Industrial Demand Reduction	Commercial/Industrial	DR	1,941,435	29,857	1,203,644	72,843,505	76,018,441	2.6%	0.0%	1.6%	95.8%	0.12	3.16%	311,933
Commercial/Industrial Load Control (Closed)	Commercial/Industrial	DR	2,912,368	0	1,588,841	189,813,449	194,314,658	1.5%	0.0%	0.8%	97.7%	0.37	9.88%	0
Business Motors	Commercial/Industrial	EE	28,254	3,837	0	31,616	63,707	44.3%	6.0%	0.0%	49.6%	0.00	0.00%	1,167,202
Conservation Research & Development	Res / Comm / Ind	EE / DR	3,811,102	0	0	0	3,811,102	100.0%	0.0%	0.0%	0.0%	0.01	0.18%	0
Residential Two-Story Wind Washing Project	Residential	EE	562,866	0	0	0	562,866	100.0%	0.0%	0.0%	0.0%	0.00	0.10%	0
Residential Proactive Energy Information Communications Research	Residential	EE	1,546,716	0	0	0	1,546,716	100.0%	0.0%	0.0%	0.0%	0.01	0.26%	0
Business Building Retro-Commissioning Research Project	Commercial/Industrial	EE	841,138	0	0	0	841,138	100.0%	0.0%	0.0%	0.0%	0.01	0.15%	0

(1) Program-specific administrative costs total \$140.6 million NPV. To that, FPL has added \$105.4 million NPV of "common expenses". These common expenses, though not program specific, were added pro-rata to program specific costs in order to comply with Staff's data request.
(2) Based on DSM Plan costs from 2011. Assumes 1,200 kWh/month consumption.
(3) Represents the 2010-2019 net present value of Lost Revenues associated with incremental participation.

Q.
For the following questions (2-5), please provide the name of each program, indicate the customer category of the program, and whether it represents an energy efficiency, demand response, or renewable program. Please include all programs on a single table, adding columns as necessary.

Please provide, on an individual program basis, the results of the E-TRC, E-RIM, and Participants Tests. Include the cumulative net present values of all benefits and costs. As part of this response, please provide the payback period for each program. Please complete the table below and provide an electronic copy in Excel (.xls file format) with the hard copy response.

Program Information - Cost Effectiveness		
Program Name	-	
Customer Category	(Res/Com/Ind)	
Program Type	(EE / DR / RE)	
E-TRC Test Results		
Total Benefits	(\$)	
Total Costs	(\$)	
Ratio	-	
E-RIM Test Results		
Total Benefits	(\$)	
Total Costs	(\$)	
Ratio	-	
Participants Test Results		
Total Benefits	(\$)	
Total Costs	(\$)	
Ratio	-	
Payback Period		
E-TRC Test	(Yrs)	
E-RIM Test	(Yrs)	
Participants Test	(Yrs)	

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Please see Table - Staff's 1st Data Request No. 4 - Revised for the requested information.

FILED - WIRE - DATE
5437 JUL -1 9
FPSC-COMMISSION CLERK

Program Information - Cost Effectiveness

Program Name:	Residential Low Income Weatherization	Residential Power Savers Energy Audit	Residential Power Savers Energy Efficiency	Residential Solar Water Heating	Residential Solar Water Heating (Low Income New Construction)	Business Solar Water Heating	Residential Photovoltaic	Business Photovoltaic	Business Photovoltaic for schools	Residential AC Repair	Residential Duct System Testing & Repair	Residential Building Envelope	Residential New Construction - Buildsmart	Residential Low Management	Residential AC Tune-up & Maintenance	Residential Refrigerator Replacement	Business Heating, Ventilating and AC	Business Lighting	Business Duct Refrigerator	Business Building Envelope	Business Water Heating	Business On-Call	Commercial/Industrial Demand Reduction	Business Motors
Customer Category (Residual or C/I):	Residential	Residential	Residential	Residential	Residential	C/I	Residential	C/I	C/I	Residential	Residential	Residential	Residential	Residential	Residential	Residential	C/I	C/I	C/I	C/I	C/I	C/I	C/I	C/I
Program Type (EE/DR/RE):	EE	FP	EE	RE	RE	RE	RE	RE	RE	EE	FP	EE	EE	DR	EE	EE	EE	EE	EE	EE	EE	DR	DR	EE
Total Benefits (\$):	13,954	71,318	122,720	50,443	1,943	1,680	14,353	11,774	1,073	1,679,871	313,098	542,637	229,808	52,332	72,219	32,561	1,096,497	417,119	93,946	338,756	45,893	46,734	136,076	5,371
Total Costs (\$):	7,738	20,607	61,469	67,882	3,555	2,261	79,369	51,284	5,490	1,042,796	108,073	408,271	92,490	14,412	36,333	29,379	356,944	96,219	21,796	352,744	15,588	6,066	1,738	793
Ratio:	1.80	3.46	2.00	0.74	0.55	0.74	0.18	0.23	0.20	1.61	2.90	1.33	2.81	6.41	1.98	1.11	3.07	4.30	4.33	1.53	2.89	7.70	88.80	6.75
Payback Period (Yrs):	0	0	0	0	0	0	6.53	11.67	0	4.29	2.47	3.38	2.35	0	2.83	2.53	2.08	2.33	2.17	2.42	2.17	0.22	0.25	2.09
Payback Period (Yrs):	0	0	0	0	0	0	6.53	11.67	0	4.29	2.47	3.38	2.35	0	2.83	2.53	2.08	2.33	2.17	2.42	2.17	0.22	0.25	2.09
Total Benefits (\$):	13,954	71,318	122,720	50,443	1,943	1,680	14,353	11,774	1,073	1,679,871	313,098	542,637	229,808	52,332	72,219	32,561	1,096,497	417,119	93,946	338,756	45,893	46,734	136,076	5,371
Total Costs (\$):	14,502	91,232	127,829	66,199	5,323	2,457	22,446	16,265	6,086	1,553,633	247,898	487,936	205,269	33,859	58,779	45,211	1,094,109	348,889	84,509	526,470	44,824	14,448	50,425	4,334
Ratio:	0.96	0.78	0.96	0.76	0.36	0.632	0.64	0.72	0.18	1.08	1.36	1.11	1.26	2.81	1.23	0.72	1.09	1.20	1.11	1.02	1.01	3.23	3.10	1.24
Total Benefits (\$):	16,019	103,394	147,936	102,636	5,704	2,374	53,825	40,032	718	1,836,724	278,307	279,066	236,052	18,867	60,365	44,061	1,134,333	399,101	97,796	577,310	50,713	8,391	48,888	5,040
Total Costs (\$):	5,371	11,498	56,619	64,242	3,073	1,268	77,833	49,715	0	1,001,675	83,774	393,986	78,982	0	24,931	20,660	346,885	94,929	20,349	346,640	14,791	0	0	762
Ratio:	2.98	9.17	2.61	1.60	1.86	1.87	0.69	0.81	Infinite	1.83	3.40	1.47	3.00	Infinite	2.42	2.13	3.27	4.20	4.81	1.67	3.43	Infinite	Infinite	6.61
Payback Period (Yrs):	0	0	0	0	0	0	6.53	11.67	0	4.29	2.47	3.38	2.35	0	2.83	2.53	2.08	2.33	2.17	2.42	2.17	0.22	0.25	2.09

Note: All dollar values shown are NPV 2009\$.

Florida Power & Light Company
Docket No. 100155-EG
Staff's First Data Request
Request No. 5- Revised
Page 1 of 1

Q.

For the following questions (2-5), please provide the name of each program, indicate the customer category of the program, and whether it represents an energy efficiency, demand response, or renewable program. Please include all programs on a single table, adding columns as necessary.

Please provide, for each program, a list of measures associated with that program. For programs with varying incentives by device or installation, please represent each as a separate 'measure' within the program. For Audit Programs, assume that any equipment provided or installed (such as Compact Fluorescent Light Bulbs) are a separate 'measure.'

A.

Please see Table - Staff's 1st Data Request No. 5 - Revised for the requested information.

DOCUMENT NUMBER DATE

05437 JUL-10

FP&L-CORP-REG-000001-01-01

Residential Low Income Portfolio Programs & Measures

Program Name	Intermediate Measure Name*	Component Measure ID	Component Measure Name	
Residential Low Income Weatherization**	Room Air Conditioner Replacement	LRMF192W	HE Room Air Conditioner - EER 12	
		LRMO192W	HE Room Air Conditioner - EER 12	
		LRSF192W	HE Room Air Conditioner - EER 12	
	Reduced Air Infiltration	LRMF127	Weather Strip/Caulk w/Blower Door - SS AC	
		LRMO127	Weather Strip/Caulk w/Blower Door - SS AC	
		LRSF127	Weather Strip/Caulk w/Blower Door - SS AC	
	Air Conditioning Unit Maintenance	LRMF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	
		LRMF114W	Proper Refrigerant Charging and Air Flow - SS AC	
		LRMO112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	
		LRMO114W	Proper Refrigerant Charging and Air Flow - SS AC	
		LRSF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	
		LRSF114W	Proper Refrigerant Charging and Air Flow - SS AC	
Residential Power Savers Energy Audit**	Compact Fluorescent Light Bulbs	LRMF231	CFL (18-Watt integral ballast), 2.5 hr/day	
		LRMO231	CFL (18-Watt integral ballast), 2.5 hr/day	
		LRSF231	CFL (18-Watt integral ballast), 2.5 hr/day	
	Faucet Aerators	LRMF407	Faucet Aerators	
		LRMO407	Faucet Aerators	
		LRSF407	Faucet Aerators	
	Low-Flow Showerhead	LRMF405	Low Flow Showerhead	
		LRMO405	Low Flow Showerhead	
		LRSF405	Low Flow Showerhead	
	Water Heater Pipe Insulation	LRMF406	Pipe Wrap	
		LRMO406	Pipe Wrap	
		LRSF406	Pipe Wrap	
	Residential Power Savers Energy Efficiency**	Room Air-Conditioner Replacement	LRMF192	HE Room Air Conditioner - EER 12
			LRMO192	HE Room Air Conditioner - EER 12
			LRSF192	HE Room Air Conditioner - EER 12
Refrigerator Replacement		LRMF301	HE Refrigerator - Energy Star version of above	
		LRMO301	HE Refrigerator - Energy Star version of above	
		LRSF301	HE Refrigerator - Energy Star version of above	
Ceiling Insulation		LRMF124	Ceiling R-0 to R-19 Insulation - SS AC	
		LRMO124	Ceiling R-0 to R-19 Insulation - SS AC	
		LRSF124	Ceiling R-0 to R-19 Insulation - SS AC	
Duct Repair		LRMF116	Duct Repair - SS AC	
		LRMO116	Duct Repair - SS AC	
		LRSF116	Duct Repair - SS AC	
Air Conditioning Unit Maintenance		LRMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	
		LRMF114	Proper Refrigerant Charging and Air Flow - SS AC	
		LRMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	
		LRMO114	Proper Refrigerant Charging and Air Flow - SS AC	
		LRSF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	
		LRSF114	Proper Refrigerant Charging and Air Flow - SS AC	

Program Name	Intermediate Measure Name*	Component Measure ID	Component Measure Name
Solar Pilot Portfolio Programs & Measures			

Programs	Intermediate Measure Name*	Component Measure ID	Component Measure Name
Residential Solar Water Heating	Residential Solar Water Heating Systems	N/A	Residential Solar Water Heating Systems
Residential Solar Water Heating (Low-Income New Construction)	Residential Solar Water Heating Systems	N/A	Residential Solar Water Heating Systems
Business Solar Water Heating	Business Solar Water Heating	N/A	Business Solar Water Heating
Residential Photovoltaics	Photovoltaic Systems	N/A	Photovoltaic Systems
Business Photovoltaics	Photovoltaic Systems	N/A	Photovoltaic Systems
Business Photovoltaics for Schools	Photovoltaic Systems	N/A	Photovoltaic Systems
Solar Research and Demonstration	Emerging Renewable Technologies	N/A	Emerging Renewable Technologies

Program Name	Intermediate Measure Name*	Component Measure ID	Component Measure Name
Residential Portfolio Programs & Measures			

Programs	Intermediate Measure Name*	Component Measure ID	Component Measure Name
Residential Home Energy Survey	Field Energy Survey	N/A	N/A
	On-line Home Energy Survey		
	Phone Energy Survey		
Residential Air Conditioning**	Straight Cool Air Conditioner	RMF101	14 SEER Split-System Air Conditioner
		RMF102	15 SEER Split-System Air Conditioner
		RMO101	14 SEER Split-System Air Conditioner
		RMO102	15 SEER Split-System Air Conditioner
		RSF101	14 SEER Split-System Air Conditioner - 13SSAC
		RSF102	15 SEER Split-System Air Conditioner- 13SSAC
		RSF103	17 SEER Split-System Air Conditioner - 13SSAC
		RSF104	19 SEER Split-System Air Conditioner - 13SSAC
		RSF962	16 SEER Split-System Air Conditioner
		RSF963	18 SEER Split-System Air Conditioner
	RSF964	20 SEER Split-System Air Conditioner	
	Heat Pump Air Conditioner	RMF105	14 SEER Split-System Heat Pump
		RMF106	15 SEER Split-System Heat Pump
		RMF131	14 SEER Split-System Heat Pump
		RMF132	15 SEER Split-System Heat Pump
		RMO105	14 SEER Split-System Heat Pump
		RMO106	15 SEER Split-System Heat Pump
		RMO131	14 SEER Split-System Heat Pump
		RMO132	15 SEER Split-System Heat Pump
		RSF105	14 SEER Split-System Heat Pump - 13SSAC
		RSF106	15 SEER Split-System Heat Pump - 13SSAC
		RSF107	17 SEER Split-System Heat Pump - 13SSAC
		RSF131	14 SEER Split-System Heat Pump- SS HP
		RSF132	15 SEER Split-System Heat Pump- SS HP
		RSF133	17 SEER Split-System Heat Pump- SS HP
		RSF965	16 SEER Split-System Heat Pump
		RSF972	16 SEER Split-System Heat Pump
		RMF108	Geothermal Heat Pump
		RMF134	Geothermal Heat Pump
	RMO108	Geothermal Heat Pump	
	RMO134	Geothermal Heat Pump	
	RSF108	Geothermal Heat Pump	
	RSF134	Geothermal Heat Pump	
	Plenum Seal	RMF969	Plenum Seal - SC base
		RMF976	Plenum Seal - HP base
		RMO969	Plenum Seal - SC base
		RMO976	Plenum Seal - HP base
		RSF969	Plenum Seal - SC base
		RSF976	Plenum Seal - HP base
	Supplemental Unit Sizing Calculation	RMF109	AC Proper Sizing
		RMF135	HVAC Proper Sizing - SS HP
		RMO109	AC Proper Sizing
		RMO135	HVAC Proper Sizing - SS HP
RSF109		AC Proper Sizing	
RSF135		HVAC Proper Sizing - SS HP	

Program Name	Intermediate Measure Name*	Component Measure ID	Component Measure Name	
Residential Duct System Testing and Repair**	Air Conditioning Duct System Testing & Repair	RMF116	Duct Repair - SS AC	
		RMF142	Duct Repair - SS HP	
		RMO116	Duct Repair - SS AC	
		RMO142	Duct Repair - SS HP	
		RSF116	Duct Repair - SS AC	
		RSF142	Duct Repair - SS HP	
Residential Building Envelope**	Ceiling Insulation	RMF124	Ceiling R-0 to R-19 Insulation - SS AC	
		RMF150	Ceiling R-0 to R-19 Insulation - SS HP	
		RMF202	Ceiling R-0 to R-19 Insulation- Room AC	
		RMO124	Ceiling R-0 to R-19 Insulation - SS AC	
		RMO150	Ceiling R-0 to R-19 Insulation - SS HP	
		RMO202	Ceiling R-0 to R-19 Insulation- Room AC	
		RSF124	Ceiling R-0 to R-19 Insulation - SS AC	
		RSF150	Ceiling R-0 to R-19 Insulation - SS HP	
		RSF202	Ceiling R-0 to R-19 Insulation- Room AC	
	Reflective Roof Coating	RMF971	Reflective Roof Coating	
		RMF978	Reflective Roof Coating	
	Reflective Roof Replacement	RSF970	Reflective Roof replacement (light colored)	
		RSF977	Reflective Roof (replacement-light colored)	
		RSF984	Reflective Roof replacement (white, base dark shingle)	
		RSF985	Reflective Roof replacement (white metal, base dark shingle)	
		RSF986	Reflective Roof replacement (white metal, base terracota tile)	
		RSF987	Reflective Roof replacement (white, base dark shingle)	
		RSF988	Reflective Roof replacement (white metal, base dark shingle)	
		RSF989	Reflective Roof replacement (white metal, base terracota tile)	
		RSF990	Reflective Roof replacement (white, base dark shingle)	
	Solar Window Screen	RSF991	Reflective Roof replacement (white metal, base dark shingle)	
		RSF992	Reflective Roof replacement (white metal, base terracota tile)	
		RMO121	Default Window With Sunscreen - SS AC	
		RMO147	Default Window With Sunscreen - SS HP	
		RSF121	Default Window With Sunscreen - SS AC	
		RSF147	Default Window With Sunscreen - SS HP	
		Residential New Construction (BuildSmart [®])**	Exceed Building Code Minimum Efficiency Requirement	RMF994
RSF994				Buildsmart 0.68-0.77 (Old 0.71<0.80)
RMF993				Buildsmart <0.67 Energy Star (Old <0.70)
RSF993	Buildsmart <0.67 Energy Star (Old <0.70)			
Residential Load Management (On Call)	Residential Load Management	N/A	Residential Load Management	
Residential AC Tune-Up & Maintenance**	Air-Conditioner Tune-Up & Maintenance	RMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	
		RMF114	Proper Refrigerant Charging and Air Flow - SS AC	
		RMF138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	
		RMF140	Proper Refrigerant Charging and Air Flow	
		RMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	
		RMO114	Proper Refrigerant Charging and Air Flow - SS AC	
		RMO138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	
Residential Refrigerator Replacement**	High-Efficiency Refrigerator	RMF301	HE Refrigerator - Energy Star version of above	
		RMO301	HE Refrigerator - Energy Star version of above	
		RSF301	HE Refrigerator - Energy Star version of above	

Program Name	Intermediate Measure Name*	Component Measure ID	Component Measure Name
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Business Portfolio Programs & Measures

Programs	Intermediate Measure Name*	Component Measure ID	Component Measure Name
Business Energy Evaluation	Field Energy Audit	N/A	N/A
	Small Business On-line Energy Audit		
Business Heating, Ventilating, & Air-Conditioning**	Chillers	CD301	Centrifugal Chiller, 0.53 kW/ton, 500 tons
		CL301	Centrifugal Chiller, 0.53 kW/ton, 500 tons
	Variable-Frequency Drives for Chillers	CD903	VFD for Centrifugal Chiller
		CL903	VFD for Centrifugal Chiller
	Demand Control Ventilation (DCV) for HVAC Applications	CD405	Demand Control Ventilation (DCV)
		CL405	Demand Control Ventilation (DCV)
		CS405	Demand Control Ventilation (DCV)
	Demand Control Ventilation (DCV) for Kitchen Hood Applications	CD902	Exhaust and Make-up Air Control System
		CL902	Exhaust and Make-up Air Control System
		CS902	Exhaust and Make-up Air Control System
	Split/Packaged Direct Expansion (DX)	CD321	DX Packaged System, EER=10.9, 10 tons
		CD341	Packaged HP System, EER=10.9, 10 tons
		CL321	DX Packaged System, EER=10.9, 10 tons
		CL341	Packaged HP System, EER=10.9, 10 tons
		CS321	DX Packaged System, EER=10.9, 10 tons
		CS341	Packaged HP System, EER=10.9, 10 tons
		CD322	Hybrid Desiccant-DX System (Trane CDQ)
		CL322	Hybrid Desiccant-DX System (Trane CDQ)
		CD361	HE PTAC, EER=9.6, 1 ton
		CL361	HE PTAC, EER=9.6, 1 ton
		CS361	HE PTAC, EER=9.6, 1 ton
	Electronically Commutated Motors (ECM) for DX	CD404	Electronically Commutated Motors (ECM) on an Air Handler Unit
		CL404	Electronically Commutated Motors (ECM) on an Air Handler Unit
		CS404	Electronically Commutated Motors (ECM) on an Air Handler Unit
	Energy Recovery Ventilation (ERV)	CD406	Energy Recovery Ventilation (ERV)
		CL406	Energy Recovery Ventilation (ERV)
		CS406	Energy Recovery Ventilation (ERV)
	Thermal Energy Storage	CD317	Thermal Energy Storage
CL317		Thermal Energy Storage	

Program Name	Intermediate Measure Name*	Component Measure ID	Component Measure Name
Business Lighting**	Compact Fluorescent Lamps (CFL)	CD141	CFL Hardwired, Modular 18W
		CL141	CFL Hardwired, Modular 18W
		CS141	CFL Hardwired, Modular 18W
	Pulse Start Metal Halide (PSMH) Lighting	CD152	PSMH, 250 W, electronic ballast
		CL152	PSMH, 250 W, electronic ballast
		CS152	PSMH, 250 W, electronic ballast
	Premium Linear Fluorescent Lamps with High Efficiency Electronic Ballasts	CD112	Premium T8, EB, Reflector
		CD122	ROB Premium T8, EB, Reflector
		CL112	Premium T8, EB, Reflector
		CL122	ROB Premium T8, EB, Reflector
		CS112	Premium T8, EB, Reflector
		CS122	ROB Premium T8, EB, Reflector
		CD111	Premium T8, Electronic Ballast
		CD121	ROB Premium T8, 1EB
		CL111	Premium T8, Electronic Ballast
		CL121	ROB Premium T8, 1EB
		CS111	Premium T8, Electronic Ballast
		CS121	ROB Premium T8, 1EB
		CD153	High Bay T5
		CL153	High Bay T5
		CS153	High Bay T5
	Light-Emitting Diode (LED) Exit Signs	CD161	LED Exit Sign
CL161		LED Exit Sign	
Business Refrigeration**	Anti-sweat Heat Controls	CD511	Anti-sweat (humidistat) controls
		CL511	Anti-sweat (humidistat) controls
	Compressor Variable-Frequency Drive (VFD)	CD506	Compressor VFD retrofit
		CL506	Compressor VFD retrofit
	Hot Gas Reclaim on Freezer Doors	CD509	Demand Hot Gas Defrost
		CL509	Demand Hot Gas Defrost
		CS509	Demand Hot Gas Defrost
	Special Doors with Low or No Anti-sweat Heat	CD513	High R-Value Glass Doors
		CL513	High R-Value Glass Doors
		CS513	High R-Value Glass Doors
	Evaporator Fan Controller for Medium-Temperature Walk-in Coolers	CD504	Evaporator fan controller for MT walk-ins
		CL504	Evaporator fan controller for MT walk-ins
Electronically Commutated Motors (ECM)	CD404	Electronically Commutated Motors (ECM) on an Air Handler Unit	
	CL404	Electronically Commutated Motors (ECM) on an Air Handler Unit	
	CS404	Electronically Commutated Motors (ECM) on an Air Handler Unit	
Oversized Air-Cooled Condensers	CD515	Oversized Air Cooled Condenser	
	CL515	Oversized Air Cooled Condenser	

Program Name	Intermediate Measure Name*	Component Measure ID	Component Measure Name
Business Building Envelope**	Ceiling Insulation	CD313	Ceiling Insulation
		CD334	Ceiling Insulation
		CD349	Ceiling Insulation
		CL313	Ceiling Insulation
		CL334	Ceiling Insulation
		CL349	Ceiling Insulation
		CS313	Ceiling Insulation
		CS334	Ceiling Insulation
		CS349	Ceiling Insulation
	Reflective Roofing	CD315	Cool Roof - Chiller
		CD336	Cool Roof - DX
		CD351	Cool Roof - DX
		CL315	Cool Roof - Chiller
		CL336	Cool Roof - DX
		CL351	Cool Roof - DX
		CS315	Cool Roof - Chiller
		CS336	Cool Roof - DX
		CS351	Cool Roof - DX
	Roof Insulation	CD314	Roof Insulation
		CD335	Roof Insulation
		CD350	Roof Insulation
		CL314	Roof Insulation
		CL335	Roof Insulation
		CL350	Roof Insulation
		CS314	Roof Insulation
		CS335	Roof Insulation
		CS350	Roof Insulation
	Window Treatment	CD311	Window Film (Standard)
		CD332	Window Film (Standard)
		CD347	Window Film (Standard)
		CL311	Window Film (Standard)
		CL332	Window Film (Standard)
		CL347	Window Film (Standard)
CS311		Window Film (Standard)	
CS332		Window Film (Standard)	
CS347		Window Film (Standard)	
Business Water Heating**	Heat Pump Water Heater	CD603	Heat Pump Water Heater (air source)
		CL603	Heat Pump Water Heater (air source)
		CS603	Heat Pump Water Heater (air source)
	Heat Recovery Unit	CD608	Heat Recovery Unit
		CL608	Heat Recovery Unit
		CS608	Heat Recovery Unit
Business Custom Incentive	Miscellaneous Measures Not Directly Offered in Existing Programs	N/A	Miscellaneous Measures Not Directly Offered in Existing Programs

Program Name	Intermediate Measure Name*	Component Measure ID	Component Measure Name
Cogeneration & Small Power Production	Cogeneration & Small Power Production Projects	N/A	Cogeneration & Small Power Production Projects
Business On-Call	Small/Medium Business Load Management	N/A	Small/Medium Business Load Management
Commercial / Industrial Demand Reduction	Large Commercial/Industrial Load Management	N/A	Large Commercial/Industrial Load Management
Commercial / Industrial Load Control (Closed)	Large Commercial/Industrial Load Management	N/A	Large Commercial/Industrial Load Management
Business Motors**	Variable-Frequency Drives (VFD) for HVAC Applications	CD306	VFD for Chiller Pumps and Towers
		CL306	VFD for Chiller Pumps and Towers

Research & Development Portfolio

Program Name	Intermediate Measure Name	Component Measure ID	Component Measure Name
Conservation Research & Development	Evaluate new energy efficiency technologies	N/A	N/A
Residential Two-Story Wind Washing Project	Repairing two story homes which have air spaces between floors open to infiltration of outside air between the first and second stories	N/A	N/A
Residential Proactive Energy Information Communications Research Project	Proactive periodic personalized energy reports	N/A	N/A
Business Building Retro-Commissioning Research Project	Building Retro-Commissioning	N/A	N/A

* Intermediate Measure Name used to group common Component Measures

** Considered "multiple measure" programs applicable to Staff's First Data Request Nos. 6-9

Q.

For the following questions (6-9), only consider those programs which feature multiple measures. Please provide the name of each measure, and indicate with which program it is associated. Include all measures on a single table, adding columns as necessary.

Please provide, for each measure identified by the criteria above, the cumulative projected savings over the period 2010 through 2019. As part of this response, please also provide the percentage of the Commission's Authorized Goals and the Company's proposed demand and energy savings met by the measure. Please complete the table below and provide an electronic copy in Excel (.xls file format) with the hard copy response.

Measure Information - Savings		
Component Measure Name	-	
Program Name with Measure	-	
Savings Associated with Measure		
Summer Demand	(MW)	
Winter Demand	(MW)	
Annual Energy	(GWh)	
% of Program		
Summer Demand	(%)	
Winter Demand	(%)	
Annual Energy	(%)	
% of Commission Authorized Goal		
Summer Demand	(%)	
Winter Demand	(%)	
Annual Energy	(%)	

A.

Please see Table - Staff's 1st Data Request No. 6 - Revised for the requested information. Please note that these measure-level percentages represent estimates and it is anticipated that actual results will likely deviate from these estimates.

Residential											
Measure Information			Savings Associated with Measure			% of Program			% of Commission Authorized Goal		
Component Measure ID	Component Measure Name	Program Name with Measure	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)
LRMF192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	0.41	0.00	0.71	10.83%	0.00%	9.06%	0.05%	0.00%	0.04%
LRMO192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	0.10	0.00	0.14	2.65%	0.00%	1.82%	0.01%	0.00%	0.01%
LRSF192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	0.40	0.00	0.74	10.59%	0.00%	9.33%	0.04%	0.00%	0.04%
LRMF127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	0.01	0.00	0.37	0.33%	26.91%	4.65%	0.00%	0.00%	0.02%
LRMO127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	0.00	0.00	0.09	0.11%	13.85%	1.20%	0.00%	0.00%	0.01%
LRSF127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	0.02	0.01	0.58	0.52%	59.24%	7.33%	0.00%	0.00%	0.03%
LRMF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	0.41	0.00	0.71	10.85%	0.00%	8.99%	0.05%	0.00%	0.04%
LRMO112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	0.13	0.00	0.18	3.47%	0.00%	2.32%	0.01%	0.00%	0.01%
LRSF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	0.63	0.00	1.47	16.72%	0.00%	18.68%	0.07%	0.00%	0.09%
LRMF114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	0.58	0.00	1.02	15.35%	0.00%	12.91%	0.06%	0.00%	0.06%
LRMO114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	0.19	0.00	0.26	4.91%	0.00%	3.33%	0.02%	0.00%	0.02%
LRSF114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	0.90	0.00	1.61	23.66%	0.00%	20.38%	0.10%	0.00%	0.09%
LRMF231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	0.80	1.20	15.00	15.82%	10.31%	22.53%	0.09%	0.25%	0.89%
LRMO231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	0.20	0.29	3.67	3.87%	2.52%	5.51%	0.02%	0.06%	0.22%
LRSF231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	0.78	1.17	14.67	15.46%	10.08%	22.03%	0.09%	0.24%	0.87%
LRMF407	Faucet Aerators	Residential Power Savers Energy Audit	0.31	0.79	2.83	6.12%	6.84%	4.25%	0.03%	0.17%	0.17%
LRMO407	Faucet Aerators	Residential Power Savers Energy Audit	0.08	0.19	0.81	1.50%	1.68%	1.21%	0.01%	0.04%	0.05%
LRSF407	Faucet Aerators	Residential Power Savers Energy Audit	0.39	1.14	4.25	7.78%	9.78%	6.39%	0.04%	0.24%	0.25%
LRMF405	Low Flow Showerhead	Residential Power Savers Energy Audit	0.78	2.01	7.16	15.48%	17.30%	10.75%	0.09%	0.42%	0.42%
LRMO405	Low Flow Showerhead	Residential Power Savers Energy Audit	0.19	0.50	2.06	3.84%	4.30%	3.10%	0.02%	0.10%	0.12%
LRSF405	Low Flow Showerhead	Residential Power Savers Energy Audit	1.00	2.91	10.89	19.90%	25.03%	16.35%	0.11%	0.61%	0.64%
LRMF406	Pipe Wrap	Residential Power Savers Energy Audit	0.21	0.53	1.88	4.07%	4.55%	2.83%	0.02%	0.11%	0.11%
LRMO406	Pipe Wrap	Residential Power Savers Energy Audit	0.05	0.13	0.54	1.00%	1.11%	0.80%	0.01%	0.03%	0.03%
LRSF406	Pipe Wrap	Residential Power Savers Energy Audit	0.26	0.75	2.82	5.16%	6.49%	4.24%	0.03%	0.16%	0.17%
LRMF192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	1.84	0.00	3.22	5.97%	0.00%	4.50%	0.21%	0.00%	0.19%
LRMO192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	0.45	0.00	0.64	1.46%	0.00%	0.90%	0.05%	0.00%	0.04%
LRSF192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	1.80	0.00	3.31	5.84%	0.00%	4.63%	0.20%	0.00%	0.20%
LRMF301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	0.73	0.67	5.35	2.35%	2.43%	7.49%	0.08%	0.14%	0.32%
LRMO301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	0.18	0.16	1.31	0.57%	0.59%	1.83%	0.02%	0.03%	0.08%
LRSF301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	0.71	0.66	5.23	2.30%	2.37%	7.32%	0.08%	0.14%	0.31%
LRMF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	1.77	4.88	5.00	5.74%	17.55%	7.00%	0.20%	1.02%	0.30%
LRMO124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	0.38	1.95	1.12	1.23%	7.02%	1.56%	0.04%	0.41%	0.07%
LRSF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	4.34	12.57	11.70	14.03%	45.25%	16.37%	0.48%	2.62%	0.69%
LRMF116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	1.77	1.60	3.06	5.74%	5.75%	4.28%	0.20%	0.33%	0.18%
LRMO116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	0.52	1.13	0.98	1.68%	4.06%	1.37%	0.06%	0.24%	0.06%
LRSF116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	3.64	4.16	6.91	11.79%	14.98%	9.66%	0.41%	0.87%	0.41%
LRMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	1.85	0.00	3.19	5.98%	0.00%	4.47%	0.21%	0.00%	0.19%
LRMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	0.59	0.00	0.82	1.91%	0.00%	1.15%	0.07%	0.00%	0.05%
LRSF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	2.85	0.00	6.63	9.21%	0.00%	9.28%	0.32%	0.00%	0.39%
LRMF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	2.61	0.00	4.58	8.46%	0.00%	6.41%	0.29%	0.00%	0.27%
LRMO114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	0.84	0.00	1.18	2.71%	0.00%	1.65%	0.09%	0.00%	0.07%
LRSF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	4.03	0.00	7.23	13.04%	0.00%	10.12%	0.45%	0.00%	0.43%

Measure Information			Savings Associated with Measure			% of Program			% of Commission Authorized Goal		
Component Measure ID	Component Measure Name	Program Name with Measure	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)
RMF101	14 SEER Split-System Air Conditioner	Residential Air Conditioning	10.78	0.00	26.90	2.37%	0.00%	3.16%	1.20%	0.00%	1.59%
RMF102	15 SEER Split-System Air Conditioner	Residential Air Conditioning	23.77	0.00	56.33	5.23%	0.00%	6.61%	2.64%	0.00%	3.32%
RMO101	14 SEER Split-System Air Conditioner	Residential Air Conditioning	2.31	0.00	5.20	0.51%	0.00%	0.61%	0.26%	0.00%	0.31%
RMO102	15 SEER Split-System Air Conditioner	Residential Air Conditioning	4.84	0.00	12.07	1.07%	0.00%	1.42%	0.54%	0.00%	0.71%
RSF101	14 SEER Split-System Air Conditioner - 13SSAC	Residential Air Conditioning	39.11	0.00	82.51	8.61%	0.00%	9.68%	4.35%	0.00%	4.87%
RSF102	15 SEER Split-System Air Conditioner - 13SSAC	Residential Air Conditioning	48.38	0.00	94.88	10.65%	0.00%	11.13%	5.38%	0.00%	5.60%
RSF103	17 SEER Split-System Air Conditioner - 13SSAC	Residential Air Conditioning	33.65	0.00	57.03	7.41%	0.00%	6.69%	3.74%	0.00%	3.36%
RSF104	19 SEER Split-System Air Conditioner - 13SSAC	Residential Air Conditioning	11.08	0.00	21.69	2.44%	0.00%	2.54%	1.23%	0.00%	1.28%
RSF962	16 SEER Split-System Air Conditioner	Residential Air Conditioning	31.71	0.00	59.64	6.98%	0.00%	7.00%	3.53%	0.00%	3.52%
RSF963	18 SEER Split-System Air Conditioner	Residential Air Conditioning	31.21	0.00	56.33	6.87%	0.00%	6.61%	3.47%	0.00%	3.32%
RSF964	20 SEER Split-System Air Conditioner	Residential Air Conditioning	5.71	0.00	11.58	1.26%	0.00%	1.36%	0.64%	0.00%	0.68%
RMF105	14 SEER Split-System Heat Pump	Residential Air Conditioning	1.52	1.64	3.67	0.34%	0.75%	0.43%	0.17%	0.34%	0.22%
RMF106	15 SEER Split-System Heat Pump	Residential Air Conditioning	0.98	1.47	2.28	0.22%	0.67%	0.27%	0.11%	0.31%	0.13%
RMF131	14 SEER Split-System Heat Pump	Residential Air Conditioning	1.69	1.82	4.07	0.37%	0.83%	0.48%	0.19%	0.38%	0.24%
RMF132	15 SEER Split-System Heat Pump	Residential Air Conditioning	1.08	1.63	2.53	0.24%	0.75%	0.30%	0.12%	0.34%	0.15%
RMO105	14 SEER Split-System Heat Pump	Residential Air Conditioning	0.25	0.24	0.52	0.05%	0.11%	0.06%	0.03%	0.05%	0.03%
RMO106	15 SEER Split-System Heat Pump	Residential Air Conditioning	0.52	0.72	1.21	0.11%	0.33%	0.14%	0.06%	0.15%	0.07%
RMO131	14 SEER Split-System Heat Pump	Residential Air Conditioning	0.28	0.27	0.58	0.06%	0.12%	0.07%	0.03%	0.06%	0.03%
RMO132	15 SEER Split-System Heat Pump	Residential Air Conditioning	0.58	0.81	1.35	0.13%	0.37%	0.16%	0.06%	0.17%	0.08%
RSF105	14 SEER Split-System Heat Pump - 13SSAC	Residential Air Conditioning	11.08	15.80	23.77	2.44%	7.24%	2.79%	1.23%	3.30%	1.40%
RSF106	15 SEER Split-System Heat Pump - 13SSAC	Residential Air Conditioning	16.95	22.86	34.12	3.73%	10.47%	4.00%	1.89%	4.77%	2.01%
RSF107	17 SEER Split-System Heat Pump - 13SSAC	Residential Air Conditioning	7.53	9.70	13.23	1.66%	4.44%	1.55%	0.84%	2.02%	0.78%
RSF131	14 SEER Split-System Heat Pump- SS HP	Residential Air Conditioning	14.39	20.52	30.87	3.17%	9.40%	3.62%	1.60%	4.28%	1.82%
RSF132	15 SEER Split-System Heat Pump- SS HP	Residential Air Conditioning	22.22	29.97	44.73	4.89%	13.73%	5.25%	2.47%	6.25%	2.64%
RSF133	17 SEER Split-System Heat Pump- SS HP	Residential Air Conditioning	10.04	12.92	17.63	2.21%	5.92%	2.07%	1.12%	2.70%	1.04%
RSF965	16 SEER Split-System Heat Pump	Residential Air Conditioning	17.50	23.05	33.84	3.85%	10.56%	3.97%	1.95%	4.81%	2.00%
RSF972	16 SEER Split-System Heat Pump	Residential Air Conditioning	22.97	30.24	44.39	5.06%	13.86%	5.21%	2.55%	6.31%	2.62%
RMF108	Geothermal Heat Pump	Residential Air Conditioning	0.18	0.43	0.77	0.04%	0.20%	0.09%	0.02%	0.09%	0.05%
RMF134	Geothermal Heat Pump	Residential Air Conditioning	0.02	0.05	0.08	0.00%	0.02%	0.01%	0.00%	0.01%	0.00%
RMO108	Geothermal Heat Pump	Residential Air Conditioning	0.02	0.04	0.05	0.01%	0.02%	0.01%	0.00%	0.01%	0.00%
RMO134	Geothermal Heat Pump	Residential Air Conditioning	0.00	0.00	0.01	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
RSF108	Geothermal Heat Pump	Residential Air Conditioning	0.60	0.51	1.61	0.13%	0.24%	0.19%	0.07%	0.11%	0.09%
RSF134	Geothermal Heat Pump	Residential Air Conditioning	0.18	0.15	0.48	0.04%	0.07%	0.06%	0.02%	0.03%	0.03%
RMF969	Plenum Seal - SC base	Residential Air Conditioning	9.97	9.48	18.92	2.20%	4.34%	2.22%	1.11%	1.98%	1.12%
RMF976	Plenum Seal - HP base	Residential Air Conditioning	1.09	1.04	2.07	0.24%	0.48%	0.24%	0.12%	0.22%	0.12%
RMO969	Plenum Seal - SC base	Residential Air Conditioning	1.82	1.91	3.81	0.40%	0.88%	0.45%	0.20%	0.40%	0.22%
RMO976	Plenum Seal - HP base	Residential Air Conditioning	0.21	0.21	0.43	0.05%	0.09%	0.05%	0.02%	0.04%	0.03%
RSF969	Plenum Seal - SC base	Residential Air Conditioning	24.63	24.63	49.40	5.42%	11.29%	5.80%	2.74%	5.14%	2.91%
RSF976	Plenum Seal - HP base	Residential Air Conditioning	6.09	6.09	12.22	1.34%	2.79%	1.43%	0.68%	1.27%	0.72%
RMF109	AC Proper Sizing	Residential Air Conditioning	8.16	0.00	4.21	1.80%	0.00%	0.49%	0.91%	0.00%	0.25%
RMF135	HVAC Proper Sizing - SS HP	Residential Air Conditioning	0.90	0.00	0.46	0.20%	0.00%	0.05%	0.10%	0.00%	0.03%
RMO109	AC Proper Sizing	Residential Air Conditioning	1.95	0.00	0.81	0.43%	0.00%	0.10%	0.22%	0.00%	0.05%
RMO135	HVAC Proper Sizing - SS HP	Residential Air Conditioning	0.22	0.00	0.09	0.05%	0.00%	0.01%	0.02%	0.00%	0.01%
RSF109	AC Proper Sizing	Residential Air Conditioning	19.00	0.00	10.04	4.18%	0.00%	1.18%	2.11%	0.00%	0.59%
RSF135	HVAC Proper Sizing - SS HP	Residential Air Conditioning	7.04	0.00	3.72	1.55%	0.00%	0.44%	0.78%	0.00%	0.22%

Measure Information			Savings Associated with Measure			% of Program			% of Commission Authorized Goal		
Component Measure ID	Component Measure Name	Program Name with Measure	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)
RMF116	Duct Repair - SS AC	Residential Duct System Testing and Repair	6.97	6.27	12.03	8.02%	6.16%	7.36%	0.77%	1.31%	0.71%
RMF142	Duct Repair - SS HP	Residential Duct System Testing and Repair	0.86	0.77	1.49	0.99%	0.76%	0.91%	0.10%	0.16%	0.09%
RMO116	Duct Repair - SS AC	Residential Duct System Testing and Repair	3.90	8.45	7.33	4.49%	8.30%	4.49%	0.43%	1.76%	0.43%
RMO142	Duct Repair - SS HP	Residential Duct System Testing and Repair	0.44	0.96	0.83	0.51%	0.94%	0.51%	0.05%	0.20%	0.05%
RSF116	Duct Repair - SS AC	Residential Duct System Testing and Repair	57.52	65.73	109.09	66.23%	64.57%	66.80%	6.40%	13.72%	6.43%
RSF142	Duct Repair - SS HP	Residential Duct System Testing and Repair	17.16	19.61	32.54	19.76%	19.26%	19.93%	1.91%	4.09%	1.92%
RMF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	9.06	24.91	25.55	6.08%	27.90%	8.20%	1.01%	5.20%	1.51%
RMF150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	0.95	1.66	2.32	0.64%	1.86%	0.75%	0.11%	0.35%	0.14%
RMF202	Ceiling R-0 to R-19 Insulation- Room AC	Residential Building Envelope	1.23	3.38	3.47	0.82%	3.79%	1.11%	0.14%	0.71%	0.20%
RMO124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	1.23	6.34	3.63	0.83%	7.11%	1.16%	0.14%	1.32%	0.21%
RMO150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	0.06	0.19	0.13	0.04%	0.21%	0.04%	0.01%	0.04%	0.01%
RMO202	Ceiling R-0 to R-19 Insulation- Room AC	Residential Building Envelope	0.09	0.44	0.25	0.06%	0.50%	0.08%	0.01%	0.09%	0.01%
RSF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	15.45	44.80	41.68	10.36%	50.18%	13.37%	1.72%	9.35%	2.46%
RSF150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	4.61	8.07	11.08	3.09%	9.04%	3.56%	0.51%	1.68%	0.65%
RSF202	Ceiling R-0 to R-19 Insulation- Room AC	Residential Building Envelope	0.85	0.80	2.40	0.57%	0.90%	0.77%	0.09%	0.17%	0.14%
RMF971	Reflective Roof Coating	Residential Building Envelope	80.12	0.00	160.27	53.75%	0.00%	51.42%	8.91%	0.00%	9.45%
RMF978	Reflective Roof Coating	Residential Building Envelope	8.90	0.00	17.80	5.97%	0.00%	5.71%	0.99%	0.00%	1.05%
RSF970	Reflective Roof replacement (light colored)	Residential Building Envelope	1.68	0.00	3.49	1.13%	0.00%	1.12%	0.19%	0.00%	0.21%
RSF977	Reflective Roof (replacement-light colored)	Residential Building Envelope	0.50	0.00	1.04	0.34%	0.00%	0.33%	0.06%	0.00%	0.06%
RSF984	Reflective Roof replacement (white, base dark sh	Residential Building Envelope	2.10	0.00	3.10	1.41%	0.00%	0.99%	0.23%	0.00%	0.18%
RSF985	Reflective Roof replacement (white metal, base d	Residential Building Envelope	1.80	0.00	3.61	1.21%	0.00%	1.16%	0.20%	0.00%	0.21%
RSF986	Reflective Roof replacement (white metal, base te	Residential Building Envelope	0.98	0.00	3.21	0.66%	0.00%	1.03%	0.11%	0.00%	0.19%
RSF987	Reflective Roof replacement (white, base dark sh	Residential Building Envelope	2.05	0.00	3.02	1.38%	0.00%	0.97%	0.23%	0.00%	0.18%
RSF988	Reflective Roof replacement (white metal, base d	Residential Building Envelope	1.76	0.00	3.53	1.18%	0.00%	1.13%	0.20%	0.00%	0.21%
RSF989	Reflective Roof replacement (white metal, base te	Residential Building Envelope	0.95	0.00	3.13	0.64%	0.00%	1.01%	0.11%	0.00%	0.18%
RSF990	Reflective Roof replacement (white, base dark sh	Residential Building Envelope	2.05	0.00	3.02	1.38%	0.00%	0.97%	0.23%	0.00%	0.18%
RSF991	Reflective Roof replacement (white metal, base d	Residential Building Envelope	1.76	0.00	3.53	1.18%	0.00%	1.13%	0.20%	0.00%	0.21%
RSF992	Reflective Roof replacement (white metal, base te	Residential Building Envelope	0.95	0.00	3.13	0.64%	0.00%	1.01%	0.11%	0.00%	0.18%
RMO121	Default Window With Sunscreen - SS AC	Residential Building Envelope	0.61	-0.09	0.46	0.41%	-0.10%	0.15%	0.07%	-0.02%	0.03%
RMO147	Default Window With Sunscreen - SS HP	Residential Building Envelope	0.07	-0.01	0.05	0.04%	-0.01%	0.02%	0.01%	0.00%	0.00%
RSF121	Default Window With Sunscreen - SS AC	Residential Building Envelope	7.19	-0.95	6.80	4.82%	-1.06%	2.18%	0.80%	-0.20%	0.40%
RSF147	Default Window With Sunscreen - SS HP	Residential Building Envelope	2.07	-0.27	1.96	1.39%	-0.31%	0.63%	0.23%	-0.06%	0.12%
RMF994	Buildsmart 0.68-0.77 (Old 0.71<0.80)	Residential New Construction (BuildSmart®)	6.42	3.14	9.71	7.81%	8.15%	7.53%	0.71%	0.65%	0.57%
RSF994	Buildsmart 0.68-0.77 (Old 0.71<0.80)	Residential New Construction (BuildSmart®)	30.32	11.79	45.94	36.86%	30.60%	35.60%	3.37%	2.46%	2.71%
RMF993	Buildsmart <0.67 Energy Star (Old <0.70)	Residential New Construction (BuildSmart®)	4.87	1.95	7.88	5.93%	5.06%	6.11%	0.54%	0.41%	0.47%
RSF993	Buildsmart <0.67 Energy Star (Old <0.70)	Residential New Construction (BuildSmart®)	40.63	21.65	65.51	49.40%	56.20%	50.77%	4.52%	4.52%	3.86%
RMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential AC Tune-Up & Maintenance	5.76	0.00	9.95	24.32%	n/a	25.06%	0.64%	0.00%	0.59%
RMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential AC Tune-Up & Maintenance	1.55	0.00	2.16	6.56%	n/a	5.45%	0.17%	0.00%	0.13%
RMF138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Residential AC Tune-Up & Maintenance	0.60	0.00	1.04	2.55%	n/a	2.63%	0.07%	0.00%	0.06%
RMO138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Residential AC Tune-Up & Maintenance	0.17	0.00	0.24	0.73%	n/a	0.61%	0.02%	0.00%	0.01%
RMF140	Proper Refrigerant Charging and Air Flow	Residential AC Tune-Up & Maintenance	1.25	0.00	2.19	5.29%	n/a	5.52%	0.14%	0.00%	0.13%
RMO140	Proper Refrigerant Charging and Air Flow	Residential AC Tune-Up & Maintenance	0.30	0.00	0.43	1.28%	n/a	1.08%	0.03%	0.00%	0.03%
RMF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential AC Tune-Up & Maintenance	11.33	0.00	19.86	47.85%	n/a	50.01%	1.26%	0.00%	1.17%
RMO114	Proper Refrigerant Charging and Air Flow - SS AC	Residential AC Tune-Up & Maintenance	2.71	0.00	3.83	11.43%	n/a	9.64%	0.30%	0.00%	0.23%
RMF301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	2.59	2.41	7.78	43.46%	43.46%	43.46%	0.29%	0.50%	0.46%
RMO301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	0.45	0.42	1.35	7.54%	7.54%	7.54%	0.05%	0.09%	0.08%
RSF301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	2.93	2.72	8.77	49.01%	49.01%	49.01%	0.33%	0.57%	0.52%

Measure Information			Savings Associated with Measure			% of Program			% of Commission Authorized Goal		
Component Measure ID	Component Measure Name	Program Name with Measure	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)
Commercial / Industrial											
Measure Information			Savings Associated with Measure			% of Program			% of Commission Authorized Goal		
Component Measure ID	Component Measure Name	Program Name with Measure	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)
CD301	Centrifugal Chiller, 0.53 kW/ton, 500 tons	Business Heating, Ventilating, & Air-Conditioning	26.53	0.74	110.82	15.29%	0.31%	16.24%	4.43%	0.59%	7.99%
CL301	Centrifugal Chiller, 0.53 kW/ton, 500 tons	Business Heating, Ventilating, & Air-Conditioning	20.24	0.57	84.56	11.67%	0.24%	12.39%	3.38%	0.45%	6.10%
CD903	VFD for Centrifugal Chiller	Business Heating, Ventilating, & Air-Conditioning	8.65	29.17	158.82	4.98%	12.21%	23.27%	1.44%	23.06%	11.45%
CL903	VFD for Centrifugal Chiller	Business Heating, Ventilating, & Air-Conditioning	6.64	22.39	121.87	3.82%	9.37%	17.86%	1.11%	17.70%	8.79%
CD405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	11.35	63.98	23.01	6.54%	26.79%	3.37%	1.90%	50.57%	1.66%
CL405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	8.51	47.96	17.25	4.91%	20.08%	2.53%	1.42%	37.91%	1.24%
CS405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	3.47	19.57	7.04	2.00%	8.19%	1.03%	0.58%	15.47%	0.51%
CD902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	0.17	0.38	1.23	0.10%	0.16%	0.18%	0.03%	0.30%	0.09%
CL902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	0.13	0.29	0.94	0.08%	0.12%	0.14%	0.02%	0.23%	0.07%
CS902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	0.00	0.01	0.04	0.00%	0.00%	0.01%	0.00%	0.01%	0.00%
CD321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	7.54	0.00	28.55	4.35%	0.00%	4.18%	1.26%	0.00%	2.06%
CD341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	1.75	0.00	6.63	1.01%	0.00%	0.97%	0.29%	0.00%	0.48%
CL321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	5.77	0.00	20.78	3.33%	0.00%	3.04%	0.96%	0.00%	1.50%
CL341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	1.34	0.00	4.83	0.77%	0.00%	0.71%	0.22%	0.00%	0.35%
CS321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	1.12	0.00	3.82	0.64%	0.00%	0.56%	0.19%	0.00%	0.28%
CS341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	0.40	0.00	1.39	0.23%	0.00%	0.20%	0.07%	0.00%	0.10%
CD322	Hybrid Desiccant-DX System (Trane CDQ)	Business Heating, Ventilating, & Air-Conditioning	1.61	0.00	10.51	0.93%	0.00%	1.54%	0.27%	0.00%	0.76%
CL322	Hybrid Desiccant-DX System (Trane CDQ)	Business Heating, Ventilating, & Air-Conditioning	1.23	0.00	8.05	0.71%	0.00%	1.18%	0.21%	0.00%	0.58%
CD361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	5.41	0.00	20.47	3.12%	0.00%	3.00%	0.90%	0.00%	1.48%
CL361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	4.14	0.00	14.88	2.38%	0.00%	2.18%	0.69%	0.00%	1.07%
CS361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	1.54	0.00	5.28	0.89%	0.00%	0.77%	0.26%	0.00%	0.38%
CD404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	1.62	0.00	11.13	0.93%	0.00%	1.63%	0.27%	0.00%	0.80%
CL404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	1.24	0.00	8.52	0.71%	0.00%	1.25%	0.21%	0.00%	0.61%
CS404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	0.21	0.00	1.43	0.12%	0.00%	0.21%	0.03%	0.00%	0.10%
CD406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	13.58	40.16	20.22	7.83%	16.82%	2.96%	2.27%	31.75%	1.46%
CL406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	1.04	3.09	1.56	0.60%	1.29%	0.23%	0.17%	2.44%	0.11%
CS406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	0.43	1.28	0.64	0.25%	0.53%	0.09%	0.07%	1.01%	0.05%
CD317	Thermal Energy Storage	Business Heating, Ventilating, & Air-Conditioning	23.91	5.86	-7.60	13.78%	2.45%	-1.11%	3.99%	4.63%	-0.55%
CL317	Thermal Energy Storage	Business Heating, Ventilating, & Air-Conditioning	13.89	3.40	-4.23	8.01%	1.43%	-0.62%	2.32%	2.69%	-0.30%

Measure Information			Savings Associated with Measure			% of Program			% of Commission Authorized Goal		
Component Measure ID	Component Measure Name	Program Name with Measure	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)
CD141	CFL Hardwired, Modular 18W	Business Lighting	2.28	1.41	7.41	2.73%	2.56%	2.53%	0.38%	1.12%	0.53%
CL141	CFL Hardwired, Modular 18W	Business Lighting	1.62	1.03	5.26	1.94%	1.87%	1.80%	0.27%	0.82%	0.38%
CS141	CFL Hardwired, Modular 18W	Business Lighting	0.70	0.47	2.29	0.84%	0.85%	0.78%	0.12%	0.37%	0.16%
CD152	PSMH, 250 W, electronic ballast	Business Lighting	2.41	1.50	7.84	2.89%	2.71%	2.68%	0.40%	1.18%	0.57%
CL152	PSMH, 250 W, electronic ballast	Business Lighting	1.83	1.17	5.94	2.12%	2.12%	2.03%	0.31%	0.92%	0.43%
CS152	PSMH, 250 W, electronic ballast	Business Lighting	0.40	0.27	1.31	0.48%	0.49%	0.45%	0.07%	0.21%	0.09%
CD112	Premium T8, EB, Reflector	Business Lighting	4.50	2.79	14.60	5.38%	5.05%	5.00%	0.75%	2.20%	1.05%
CD122	ROB Premium T8, EB, Reflector	Business Lighting	9.38	5.82	30.48	11.23%	10.54%	10.43%	1.57%	4.60%	2.20%
CL112	Premium T8, EB, Reflector	Business Lighting	3.41	2.18	11.09	4.08%	3.95%	3.79%	0.57%	1.72%	0.80%
CL122	ROB Premium T8, EB, Reflector	Business Lighting	7.14	4.56	23.18	8.54%	8.27%	7.93%	1.19%	3.61%	1.67%
CS112	Premium T8, EB, Reflector	Business Lighting	1.06	0.71	3.46	1.27%	1.28%	1.18%	0.18%	0.56%	0.25%
CS122	ROB Premium T8, EB, Reflector	Business Lighting	2.29	1.52	7.43	2.74%	2.75%	2.54%	0.38%	1.20%	0.54%
CD111	Premium T8, Electronic Ballast	Business Lighting	1.49	0.92	4.83	1.78%	1.67%	1.65%	0.25%	0.73%	0.35%
CD121	ROB Premium T8, 1EB	Business Lighting	9.32	5.78	30.27	11.16%	10.47%	10.36%	1.56%	4.57%	2.18%
CL111	Premium T8, Electronic Ballast	Business Lighting	1.10	0.71	3.59	1.32%	1.28%	1.23%	0.18%	0.56%	0.26%
CL121	ROB Premium T8, 1EB	Business Lighting	7.09	4.53	23.03	8.48%	8.21%	7.88%	1.18%	3.58%	1.66%
CS111	Premium T8, Electronic Ballast	Business Lighting	0.36	0.24	1.17	0.43%	0.43%	0.40%	0.06%	0.19%	0.08%
CS121	ROB Premium T8, 1EB	Business Lighting	1.36	0.90	4.43	1.63%	1.64%	1.51%	0.23%	0.72%	0.32%
CD153	High Bay T5	Business Lighting	10.79	6.69	35.06	12.92%	12.13%	11.99%	1.80%	5.29%	2.53%
CL153	High Bay T5	Business Lighting	8.19	5.23	26.59	9.80%	9.48%	9.10%	1.37%	4.14%	1.92%
CS153	High Bay T5	Business Lighting	1.60	1.06	5.19	1.91%	1.92%	1.78%	0.27%	0.84%	0.37%
CD161	LED Exit Sign	Business Lighting	2.96	3.22	21.50	3.54%	5.84%	7.35%	0.49%	2.55%	1.55%
CL161	LED Exit Sign	Business Lighting	2.26	2.46	16.41	2.70%	4.46%	5.61%	0.38%	1.95%	1.18%
CD511	Anti-sweat (humidistat) controls	Business Refrigeration	1.07	1.76	9.22	11.44%	21.54%	11.22%	0.18%	1.39%	0.66%
CL511	Anti-sweat (humidistat) controls	Business Refrigeration	0.82	1.35	7.08	8.78%	16.53%	8.61%	0.14%	1.07%	0.51%
CD506	Compressor VSD retrofit	Business Refrigeration	0.67	0.55	10.57	7.12%	6.70%	12.86%	0.11%	0.43%	0.76%
CL506	Compressor VSD retrofit	Business Refrigeration	0.51	0.42	8.11	5.46%	5.14%	9.87%	0.09%	0.33%	0.58%
CD509	Demand Hot Gas Defrost	Business Refrigeration	0.13	0.11	0.38	1.43%	1.34%	0.47%	0.02%	0.09%	0.03%
CL509	Demand Hot Gas Defrost	Business Refrigeration	0.10	0.08	0.29	1.10%	1.03%	0.36%	0.02%	0.07%	0.02%
CS509	Demand Hot Gas Defrost	Business Refrigeration	0.03	0.03	0.09	0.34%	0.32%	0.11%	0.01%	0.02%	0.01%
CD513	High R-Value Glass Doors	Business Refrigeration	0.37	0.30	2.90	3.91%	3.68%	3.53%	0.06%	0.24%	0.21%
CL513	High R-Value Glass Doors	Business Refrigeration	0.28	0.23	2.23	3.00%	2.82%	2.71%	0.05%	0.18%	0.16%
CS513	High R-Value Glass Doors	Business Refrigeration	0.01	0.01	0.08	0.11%	0.10%	0.10%	0.00%	0.01%	0.01%
CD504	Evaporator fan controller for MT walk-ins	Business Refrigeration	0.06	0.05	0.49	0.67%	0.63%	0.60%	0.01%	0.04%	0.04%
CL504	Evaporator fan controller for MT walk-ins	Business Refrigeration	0.05	0.04	0.38	0.51%	0.48%	0.46%	0.01%	0.03%	0.03%
CD404	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	0.69	0.00	4.77	7.39%	0.00%	5.81%	0.12%	0.00%	0.34%
CL404	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	0.53	0.00	3.65	5.66%	0.00%	4.44%	0.09%	0.00%	0.26%
CS404	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	0.09	0.00	0.61	0.95%	0.00%	0.74%	0.01%	0.00%	0.04%
CD515	Oversized Air Cooled Condenser	Business Refrigeration	2.24	1.84	17.71	23.85%	22.46%	21.56%	0.37%	1.45%	1.28%
CL515	Oversized Air Cooled Condenser	Business Refrigeration	1.72	1.41	13.59	18.30%	17.23%	16.54%	0.29%	1.11%	0.98%

Measure Information			Savings Associated with Measure			% of Program			% of Commission Authorized Goal		
Component Measure ID	Component Measure Name	Program Name with Measure	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)	Summer Demand (%)	Winter Demand (%)	Annual Energy (%)
CD313	Ceiling Insulation	Business Building Envelope	0.15	0.11	0.27	0.11%	1.07%	0.10%	0.02%	0.09%	0.02%
CD334	Ceiling Insulation	Business Building Envelope	0.46	0.35	0.84	0.33%	3.36%	0.31%	0.08%	0.28%	0.06%
CD349	Ceiling Insulation	Business Building Envelope	0.06	0.04	0.10	0.04%	0.42%	0.04%	0.01%	0.03%	0.01%
CL313	Ceiling Insulation	Business Building Envelope	0.13	0.24	0.25	0.10%	2.29%	0.09%	0.02%	0.19%	0.02%
CL334	Ceiling Insulation	Business Building Envelope	0.47	0.86	0.90	0.35%	8.21%	0.34%	0.08%	0.68%	0.06%
CL349	Ceiling Insulation	Business Building Envelope	0.04	0.08	0.08	0.03%	0.76%	0.03%	0.01%	0.06%	0.01%
CS313	Ceiling Insulation	Business Building Envelope	1.56	1.72	2.81	1.14%	16.42%	1.05%	0.26%	1.36%	0.20%
CS334	Ceiling Insulation	Business Building Envelope	5.78	6.40	10.42	4.22%	60.98%	3.90%	0.97%	5.06%	0.75%
CS349	Ceiling Insulation	Business Building Envelope	0.54	0.60	0.97	0.39%	5.67%	0.36%	0.09%	0.47%	0.07%
CD315	Cool Roof - Chiller	Business Building Envelope	7.43	0.00	14.24	5.43%	0.00%	5.33%	1.24%	0.00%	1.03%
CD336	Cool Roof - DX	Business Building Envelope	45.10	0.00	86.42	32.94%	0.00%	32.37%	7.53%	0.00%	6.23%
CD351	Cool Roof - DX	Business Building Envelope	6.14	0.00	11.77	4.49%	0.00%	4.41%	1.03%	0.00%	0.85%
CL315	Cool Roof - Chiller	Business Building Envelope	7.43	0.00	14.35	5.43%	0.00%	5.38%	1.24%	0.00%	1.04%
CL336	Cool Roof - DX	Business Building Envelope	35.19	0.00	67.95	25.70%	0.00%	25.45%	5.88%	0.00%	4.90%
CL351	Cool Roof - DX	Business Building Envelope	4.75	0.00	9.17	3.47%	0.00%	3.43%	0.79%	0.00%	0.66%
CS315	Cool Roof - Chiller	Business Building Envelope	2.34	0.00	4.22	1.71%	0.00%	1.58%	0.39%	0.00%	0.30%
CS336	Cool Roof - DX	Business Building Envelope	12.78	0.00	22.98	9.33%	0.00%	8.61%	2.13%	0.00%	1.66%
CS351	Cool Roof - DX	Business Building Envelope	2.01	0.00	3.62	1.47%	0.00%	1.36%	0.34%	0.00%	0.26%
CD314	Roof Insulation	Business Building Envelope	0.17	0.19	0.36	0.12%	1.76%	0.14%	0.03%	0.15%	0.03%
CD335	Roof Insulation	Business Building Envelope	0.65	0.71	1.38	0.47%	6.73%	0.52%	0.11%	0.56%	0.10%
CD350	Roof Insulation	Business Building Envelope	0.12	0.13	0.26	0.09%	1.25%	0.10%	0.02%	0.10%	0.02%
CL314	Roof Insulation	Business Building Envelope	0.14	0.20	0.26	0.10%	1.90%	0.10%	0.02%	0.16%	0.02%
CL335	Roof Insulation	Business Building Envelope	0.53	0.76	1.01	0.38%	7.26%	0.38%	0.09%	0.60%	0.07%
CL350	Roof Insulation	Business Building Envelope	0.10	0.14	0.19	0.07%	1.35%	0.07%	0.02%	0.11%	0.01%
CS314	Roof Insulation	Business Building Envelope	0.01	0.01	0.02	0.01%	0.12%	0.01%	0.00%	0.01%	0.00%
CS335	Roof Insulation	Business Building Envelope	0.04	0.05	0.09	0.03%	0.46%	0.03%	0.01%	0.04%	0.01%
CS350	Roof Insulation	Business Building Envelope	0.01	0.01	0.02	0.01%	0.08%	0.01%	0.00%	0.01%	0.00%
CD311	Window Film (Standard)	Business Building Envelope	0.09	-0.07	0.38	0.06%	-0.65%	0.14%	0.01%	-0.05%	0.03%
CD332	Window Film (Standard)	Business Building Envelope	0.80	-0.63	3.49	0.58%	-5.96%	1.31%	0.13%	-0.49%	0.25%
CD347	Window Film (Standard)	Business Building Envelope	0.05	-0.04	0.24	0.04%	-0.41%	0.09%	0.01%	-0.03%	0.02%
CL311	Window Film (Standard)	Business Building Envelope	0.07	-0.03	0.30	0.05%	-0.32%	0.11%	0.01%	-0.03%	0.02%
CL332	Window Film (Standard)	Business Building Envelope	0.63	-0.31	2.72	0.46%	-2.91%	1.02%	0.10%	-0.24%	0.20%
CL347	Window Film (Standard)	Business Building Envelope	0.04	-0.02	0.19	0.03%	-0.20%	0.07%	0.01%	-0.02%	0.01%
CS311	Window Film (Standard)	Business Building Envelope	0.04	-0.04	0.19	0.03%	-0.38%	0.07%	0.01%	-0.03%	0.01%
CS332	Window Film (Standard)	Business Building Envelope	1.01	-0.91	4.24	0.74%	-8.68%	1.59%	0.17%	-0.72%	0.31%
CS347	Window Film (Standard)	Business Building Envelope	0.07	-0.06	0.29	0.05%	-0.59%	0.11%	0.01%	-0.05%	0.02%
CD603	Heat Pump Water Heater (air source)	Business Water Heating	3.25	2.03	23.31	55.81%	55.81%	65.10%	0.54%	1.60%	1.68%
CL603	Heat Pump Water Heater (air source)	Business Water Heating	1.27	0.79	9.09	21.76%	21.76%	25.38%	0.21%	0.62%	0.66%
CS603	Heat Pump Water Heater (air source)	Business Water Heating	0.05	0.03	0.34	0.81%	0.81%	0.95%	0.01%	0.02%	0.02%
CD608	Heat Recovery Unit	Business Water Heating	0.60	0.38	1.47	10.36%	10.36%	4.11%	0.10%	0.30%	0.11%
CL608	Heat Recovery Unit	Business Water Heating	0.46	0.29	1.13	7.95%	7.95%	3.15%	0.08%	0.23%	0.08%
CS608	Heat Recovery Unit	Business Water Heating	0.19	0.12	0.47	3.32%	3.32%	1.32%	0.03%	0.10%	0.03%
CD306	VFD for Chiller Pumps and Towers	Business Motors	0.50	0.01	2.48	56.58%	56.58%	56.58%	0.08%	0.01%	0.18%
CL306	VFD for Chiller Pumps and Towers	Business Motors	0.39	0.01	1.91	43.42%	43.42%	43.42%	0.06%	0.01%	0.14%

Measure Information			Measure Cost (Cumulative NPV)				Measure Cost (% of Measure)				Measure Rate Impact			
Component Measure ID	Component Measure Name	Program Name with Measure	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact (\$/mo) ⁽²⁾	% of Total ECCR Cost	Lost Revenues (\$) ⁽³⁾
LRMF192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	31,586	4,679	0	203,167	239,432	13.2%	2.0%	0.0%	84.9%	0.000	0.012%	262,420
LRMO192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	7,721	1,144	0	49,663	58,528	13.2%	2.0%	0.0%	84.9%	0.000	0.003%	52,596
LRSF192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	30,884	4,575	0	198,652	234,111	13.2%	2.0%	0.0%	84.9%	0.000	0.012%	270,095
LRMF127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	223,591	33,339	0	303,695	560,625	39.9%	5.9%	0.0%	54.2%	0.001	0.020%	134,495
LRMO127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	54,656	8,150	0	74,237	137,042	39.9%	5.9%	0.0%	54.2%	0.000	0.005%	34,717
LRSF127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	218,622	32,598	0	296,947	548,167	39.9%	5.9%	0.0%	54.2%	0.001	0.019%	212,342
LRMF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	210,562	31,468	0	284,668	526,698	40.0%	6.0%	0.0%	54.0%	0.001	0.016%	260,378
LRMO112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	51,471	7,692	0	69,586	128,748	40.0%	6.0%	0.0%	54.0%	0.000	0.004%	67,217
LRSF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	205,883	30,769	0	278,342	514,994	40.0%	6.0%	0.0%	54.0%	0.001	0.015%	540,896
LRMF114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	126,344	18,716	0	267,019	412,079	30.7%	4.5%	0.0%	64.8%	0.001	0.020%	373,708
LRMO114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	30,884	4,575	0	65,271	100,731	30.7%	4.5%	0.0%	64.8%	0.000	0.005%	96,472
LRSF114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	123,536	18,300	0	261,085	402,922	30.7%	4.5%	0.0%	64.8%	0.001	0.020%	590,003
LRMF231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	490,945	429,040	0	1,551,904	2,471,889	19.9%	17.4%	0.0%	62.8%	0.004	0.105%	4,885,100
LRMO231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	120,009	104,876	0	379,354	604,239	19.9%	17.4%	0.0%	62.8%	0.001	0.026%	1,194,136
LRSF231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	480,035	419,506	0	1,517,417	2,416,958	19.9%	17.4%	0.0%	62.8%	0.004	0.103%	4,776,543
LRMF407	Faucet Aerators	Residential Power Savers Energy Audit	357,250	311,269	0	95,634	764,153	46.8%	40.7%	0.0%	12.5%	0.000	0.010%	262,719
LRMO407	Faucet Aerators	Residential Power Savers Energy Audit	87,328	76,088	0	23,377	186,793	46.8%	40.7%	0.0%	12.5%	0.000	0.004%	138,509
LRSF407	Faucet Aerators	Residential Power Savers Energy Audit	349,311	304,352	0	93,509	747,172	46.8%	40.7%	0.0%	12.5%	0.002	0.042%	1,385,039
LRMF405	Low Flow Showerhead	Residential Power Savers Energy Audit	357,250	311,269	0	191,269	859,787	41.6%	36.2%	0.0%	22.2%	0.000	0.012%	272,265
LRMO405	Low Flow Showerhead	Residential Power Savers Energy Audit	87,328	76,088	0	46,755	210,170	41.6%	36.2%	0.0%	22.2%	0.002	0.047%	3,544,133
LRSF405	Low Flow Showerhead	Residential Power Savers Energy Audit	349,311	304,352	0	187,018	840,681	41.6%	36.2%	0.0%	22.2%	0.002	0.060%	613,016
LRMF406	Pipe Wrap	Residential Power Savers Energy Audit	357,250	311,269	0	382,537	1,051,055	34.0%	29.6%	0.0%	36.4%	0.001	0.015%	174,259
LRMO406	Pipe Wrap	Residential Power Savers Energy Audit	87,328	76,088	0	93,509	256,925	34.0%	29.6%	0.0%	36.4%	0.002	0.058%	918,683
LRSF406	Pipe Wrap	Residential Power Savers Energy Audit	349,311	304,352	0	374,036	1,027,699	34.0%	29.6%	0.0%	36.4%	0.002	0.054%	1,047,126
LRMF192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	42,124	10,125	0	871,188	923,437	4.6%	1.1%	0.0%	94.3%	0.000	0.013%	209,871
LRMO192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	10,297	2,475	0	212,957	225,729	4.6%	1.1%	0.0%	94.3%	0.000	0.003%	1,077,753
LRSF192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	41,188	9,900	0	851,829	902,916	4.6%	1.1%	0.0%	94.3%	0.002	0.053%	1,742,944
LRMF301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	518,244	124,569	0	6,222,774	6,865,587	7.5%	1.8%	0.0%	90.6%	0.015	0.404%	426,053
LRMO301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	126,682	30,450	0	1,521,123	1,678,255	7.5%	1.8%	0.0%	90.6%	0.015	0.395%	1,704,212
LRSF301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	506,727	121,800	0	6,084,491	6,713,018	7.5%	1.8%	0.0%	90.6%	0.006	0.162%	997,060
LRMF116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	309,377	74,364	0	2,379,589	2,763,329	11.2%	2.7%	0.0%	86.1%	0.001	0.040%	318,505
LRMO116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	75,625	18,178	0	581,677	675,481	11.2%	2.7%	0.0%	86.1%	0.006	0.158%	2,248,925
LRSF116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	302,502	72,711	0	2,326,709	2,701,922	11.2%	2.7%	0.0%	86.1%	0.005	0.169%	1,628,721
LRMF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	77,083	18,528	0	2,768,886	2,864,496	2.7%	0.6%	0.0%	97.8%	0.002	0.063%	363,512
LRMO124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	18,842	4,529	0	1,035,945	1,059,317	1.8%	0.4%	0.0%	98.0%	0.010	0.281%	3,808,217
LRSF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	75,370	18,116	0	4,658,286	4,751,772	1.6%	0.4%	0.0%	97.8%	0.002	0.056%	1,038,976
LRMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	264,563	63,761	0	1,148,421	1,476,744	17.9%	4.3%	0.0%	77.8%	0.001	0.014%	268,213
LRMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	64,671	15,586	0	280,725	360,982	17.9%	4.3%	0.0%	77.8%	0.002	0.054%	2,158,319
LRSF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	258,684	62,344	0	1,122,900	1,443,928	17.9%	4.3%	0.0%	77.8%	0.003	0.079%	1,491,194
LRMF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	168,495	40,501	0	1,144,990	1,353,986	12.4%	3.0%	0.0%	84.6%	0.001	0.019%	384,950
LRMO114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	41,188	9,900	0	279,887	330,974	12.4%	3.0%	0.0%	84.6%	0.003	0.078%	2,354,270
LRSF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	164,750	39,601	0	1,119,546	1,323,897	12.4%	3.0%	0.0%	84.6%	0.025	0.669%	12,748,834
RMF101	14 SEER Split-System Air Conditioner	Residential Air-Conditioning	2,672,255	241,238	0	8,915,313	11,828,807	22.6%	2.0%	0.0%	75.4%	0.039	1.059%	20,660,964
RMF102	15 SEER Split-System Air Conditioner	Residential Air-Conditioning	3,394,987	308,356	0	19,974,827	23,678,171	14.3%	1.3%	0.0%	84.4%	0.008	0.213%	4,432,935
RMO101	14 SEER Split-System Air Conditioner	Residential Air-Conditioning	510,028	46,044	0	2,095,136	2,651,208	19.2%	1.7%	0.0%	79.0%	0.006	0.151%	2,468,119
RMO102	15 SEER Split-System Air Conditioner	Residential Air-Conditioning	665,064	60,407	0	4,016,008	4,741,479	14.0%	1.3%	0.0%	84.7%	0.003	0.083%	29,106,330
RSF101	14 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	5,344,988	485,977	0	21,010,636	26,841,601	19.9%	1.8%	0.0%	78.3%	0.043	1.154%	38,840,077
RSF102	15 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	4,287,246	388,215	0	48,903,186	53,578,647	8.0%	0.7%	0.0%	91.3%	0.073	2.785%	19,197,737
RSF103	17 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	1,567,641	142,571	0	44,134,260	45,844,472	3.4%	0.3%	0.0%	96.3%	0.018	0.481%	7,389,748
RSF104	19 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	467,473	42,530	0	10,859,777	11,369,780	4.1%	0.4%	0.0%	95.5%	0.042	1.141%	26,147,172
RSF982	16 SEER Split-System Air Conditioner	Residential Air-Conditioning	2,170,874	194,600	0	33,591,500	35,956,973	6.0%	0.5%	0.0%	93.4%	0.051	1.368%	19,197,223
RSF963	18 SEER Split-System Air Conditioner	Residential Air-Conditioning	1,378,884	125,449	0	30,828,222	32,332,555	4.3%	0.4%	0.0%	95.3%	0.018	0.491%	4,071,226
RSF964	20 SEER Split-System Air Conditioner	Residential Air-Conditioning	232,445	21,146	0	11,341,679	11,595,270	2.0%	0.2%	0.0%	97.8%	0.002	0.061%	1,596,531
RMF105	14 SEER Split-System Heat Pump	Residential Air-Conditioning	263,559	23,926	0	1,104,809	1,392,294	18.9%	1.7%	0.0%	79.4%	0.005	0.142%	1,374,112
RMF106	15 SEER Split-System Heat Pump	Residential Air-Conditioning	135,712	12,056	0	1,388,575	1,536,344	8.8%	0.8%	0.0%	90.4%	0.003	0.068%	1,771,493
RMF131	14 SEER Split-System Heat Pump	Residential Air-Conditioning	292,442	26,548	0	1,225,883	1,544,874	18.9%	1.7%	0.0%	79.4%	0.003	0.068%	1,771,493

Measure Information			Measure Cost (Cumulative NPV)				Measure Cost (% of Measure)				Measure Rate Impact			
Component Measure ID	Component Measure Name	Program Name with Measure	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact (\$/mo) ⁽²⁾	% of Total ECCR Cost	Last Revenues (\$) ⁽³⁾
RMF132	15 SEER Split-System Heat Pump	Residential Air-Conditioning	150,585	13,377	0	1,540,748	1,704,710	8.8%	0.8%	0.0%	90.4%	0.006	0.157%	1,524,700
RMO105	14 SEER Split-System Heat Pump	Residential Air-Conditioning	38,326	3,460	0	161,052	202,838	18.9%	1.7%	0.0%	79.4%	0.000	0.012%	247,910
RMO106	15 SEER Split-System Heat Pump	Residential Air-Conditioning	55,388	5,031	0	583,539	643,957	8.6%	0.8%	0.0%	90.6%	0.001	0.029%	444,839
RMO131	14 SEER Split-System Heat Pump	Residential Air-Conditioning	42,680	3,853	0	179,349	225,882	18.9%	1.7%	0.0%	79.4%	0.000	0.013%	276,075
RMO132	15 SEER Split-System Heat Pump	Residential Air-Conditioning	61,680	5,602	0	649,834	717,117	8.6%	0.8%	0.0%	90.6%	0.001	0.032%	495,377
RSF105	14 SEER Split-System Heat Pump - 13SSAC	Residential Air-Conditioning	1,118,084	101,572	0	3,644,813	4,864,469	23.0%	2.1%	0.0%	74.9%	0.008	0.211%	8,557,863
RSF106	15 SEER Split-System Heat Pump - 13SSAC	Residential Air-Conditioning	1,184,013	107,516	0	13,198,634	14,490,163	8.2%	0.7%	0.0%	91.1%	0.024	0.648%	12,481,719
RSF107	17 SEER Split-System Heat Pump - 13SSAC	Residential Air-Conditioning	334,174	30,243	0	14,114,511	14,478,928	2.3%	0.2%	0.0%	97.5%	0.027	0.740%	5,721,541
RSF131	14 SEER Split-System Heat Pump- SS HP	Residential Air-Conditioning	1,451,841	131,892	0	4,732,817	6,316,549	23.0%	2.1%	0.0%	74.9%	0.010	0.274%	11,112,448
RSF132	15 SEER Split-System Heat Pump- SS HP	Residential Air-Conditioning	1,549,478	140,725	0	17,263,657	18,953,860	8.2%	0.7%	0.0%	91.1%	0.031	0.842%	16,261,666
RSF133	17 SEER Split-System Heat Pump- SS HP	Residential Air-Conditioning	437,801	39,639	0	18,406,705	18,884,145	2.3%	0.2%	0.0%	97.5%	0.036	0.960%	7,206,813
RSF965	16 SEER Split-System Heat Pump	Residential Air-Conditioning	985,535	89,358	0	21,977,751	23,052,644	4.3%	0.4%	0.0%	95.3%	0.041	1.097%	13,544,112
RSF972	16 SEER Split-System Heat Pump	Residential Air-Conditioning	1,289,834	116,970	0	28,745,184	30,151,988	4.3%	0.4%	0.0%	95.3%	0.053	1.424%	17,631,394
RMF108	Geothermal Heat Pump	Residential Air-Conditioning	38,200	3,465	0	291,076	332,741	11.5%	1.0%	0.0%	87.5%	0.001	0.015%	303,233
RMF134	Geothermal Heat Pump	Residential Air-Conditioning	4,186	380	0	31,899	36,465	11.5%	1.0%	0.0%	87.5%	0.000	0.002%	33,231
RMO108	Geothermal Heat Pump	Residential Air-Conditioning	3,556	323	0	29,720	33,599	10.6%	1.0%	0.0%	88.5%	0.000	0.002%	21,122
RMO134	Geothermal Heat Pump	Residential Air-Conditioning	404	37	0	3,376	3,817	10.6%	1.0%	0.0%	88.5%	0.000	0.000%	2,400
RSF108	Geothermal Heat Pump	Residential Air-Conditioning	57,369	5,212	0	375,860	438,441	13.1%	1.2%	0.0%	85.7%	0.001	0.019%	575,832
RSF134	Geothermal Heat Pump	Residential Air-Conditioning	17,125	1,556	0	115,167	133,847	12.8%	1.2%	0.0%	86.0%	0.000	0.006%	171,890
RMF969	Plenum Seal - SC base	Residential Air-Conditioning	453,277	41,082	0	5,506,914	6,001,273	7.6%	0.7%	0.0%	91.8%	0.011	0.302%	7,711,639
RMF976	Plenum Seal - HP base	Residential Air-Conditioning	49,674	4,502	0	603,497	657,674	7.6%	0.7%	0.0%	91.8%	0.001	0.033%	845,111
RMO969	Plenum Seal - SC base	Residential Air-Conditioning	82,707	7,496	0	954,845	1,045,048	7.9%	0.7%	0.0%	91.4%	0.002	0.053%	1,552,660
RMO976	Plenum Seal - HP base	Residential Air-Conditioning	9,396	852	0	108,479	118,727	7.9%	0.7%	0.0%	91.4%	0.000	0.006%	176,397
RSF969	Plenum Seal - SC base	Residential Air-Conditioning	716,601	65,151	0	6,185,768	6,967,520	10.3%	0.9%	0.0%	88.8%	0.011	0.305%	17,652,404
RSF976	Plenum Seal - HP base	Residential Air-Conditioning	184,587	16,730	0	1,610,603	1,811,920	10.2%	0.9%	0.0%	88.9%	0.003	0.091%	4,981,312
RMF109	AC Proper Sizing	Residential Air-Conditioning	523,011	47,402	0	3,929,020	4,499,434	11.6%	1.1%	0.0%	87.3%	0.008	0.226%	1,716,499
RMF135	HVAC Proper Sizing - SS HP	Residential Air-Conditioning	57,316	5,195	0	430,046	492,557	11.6%	1.1%	0.0%	87.3%	0.001	0.025%	189,287
RMO109	AC Proper Sizing	Residential Air-Conditioning	95,431	8,649	0	708,935	813,015	11.7%	1.1%	0.0%	87.2%	0.002	0.041%	330,845
RMO135	HVAC Proper Sizing - SS HP	Residential Air-Conditioning	10,842	983	0	80,797	92,621	11.7%	1.1%	0.0%	87.2%	0.000	0.005%	37,022
RSF109	AC Proper Sizing	Residential Air-Conditioning	758,389	68,828	0	4,981,750	5,808,967	13.1%	1.2%	0.0%	85.8%	0.010	0.276%	3,859,209
RSF135	HVAC Proper Sizing - SS HP	Residential Air-Conditioning	269,867	24,576	0	1,753,372	2,047,815	13.2%	1.2%	0.0%	85.6%	0.003	0.082%	1,248,749
RMF116	Duct Repair - SS AC	Residential Duct System Testing and Repair	4,215,605	625,140	0	6,447,702	11,288,448	37.3%	5.5%	0.0%	57.1%	0.017	0.459%	4,971,671
RMF142	Duct Repair - SS HP	Residential Duct System Testing and Repair	509,657	75,692	0	774,624	1,359,973	37.5%	5.6%	0.0%	57.0%	0.002	0.050%	572,781
RMO116	Duct Repair - SS AC	Residential Duct System Testing and Repair	1,869,779	278,054	0	3,504,527	5,652,360	33.1%	4.9%	0.0%	62.0%	0.007	0.195%	2,555,948
RMO142	Duct Repair - SS HP	Residential Duct System Testing and Repair	212,425	31,590	0	398,147	642,162	33.1%	4.9%	0.0%	62.0%	0.001	0.022%	290,380
RSF116	Duct Repair - SS AC	Residential Duct System Testing and Repair	15,280,027	2,275,400	0	22,415,589	39,971,016	38.2%	5.7%	0.0%	56.1%	0.047	1.265%	33,822,408
RSF142	Duct Repair - SS HP	Residential Duct System Testing and Repair	4,555,733	678,404	0	6,682,239	11,916,375	38.2%	5.7%	0.0%	56.1%	0.014	0.378%	10,067,903
RMF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	1,167,366	308,554	0	10,993,533	12,469,452	9.4%	2.5%	0.0%	88.2%	0.019	0.525%	8,568,361
RMF150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	121,403	32,080	0	1,139,138	1,292,620	9.4%	2.5%	0.0%	88.1%	0.002	0.053%	764,084
RMF202	Ceiling R-0 to R-19 Insulation - Room AC	Residential Building Envelope	158,459	41,883	0	1,492,273	1,692,616	9.4%	2.5%	0.0%	88.2%	0.003	0.071%	1,163,078
RMO124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	187,371	49,469	0	2,223,228	2,460,067	7.6%	2.0%	0.0%	90.4%	0.004	0.102%	1,367,928
RMO150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	8,635	2,281	0	90,307	101,222	8.5%	2.3%	0.0%	89.2%	0.000	0.003%	54,903
RMO202	Ceiling R-0 to R-19 Insulation - Room AC	Residential Building Envelope	13,083	3,454	0	155,231	171,768	7.6%	2.0%	0.0%	90.4%	0.000	0.007%	95,512
RSF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	796,267	210,467	0	11,387,623	12,394,357	6.4%	1.7%	0.0%	91.9%	0.019	0.523%	13,976,058
RSF150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	237,692	62,826	0	3,575,163	3,875,680	6.1%	1.6%	0.0%	92.2%	0.006	0.164%	3,716,835
RSF202	Ceiling R-0 to R-19 Insulation - Room AC	Residential Building Envelope	43,217	11,423	0	599,651	654,291	6.6%	1.7%	0.0%	91.6%	0.001	0.028%	806,158
RMF971	Reflective Roof Coating	Residential Building Envelope	1,405,960	336,477	0	59,377,083	61,119,520	2.3%	0.6%	0.0%	97.1%	0.064	1.737%	46,924,363
RMF978	Reflective Roof Coating	Residential Building Envelope	156,035	37,386	0	6,591,066	6,784,488	2.3%	0.6%	0.0%	97.1%	0.007	0.193%	5,205,558
RSF970	Reflective Roof replacement (light colored)	Residential Building Envelope	368,017	96,372	0	1,410,864	1,875,253	19.6%	5.1%	0.0%	75.2%	0.002	0.049%	851,148
RSF977	Reflective Roof (replacement-light colored)	Residential Building Envelope	199,856	28,768	0	421,153	559,777	19.6%	5.1%	0.0%	75.2%	0.001	0.015%	254,074
RSF984	Reflective Roof replacement (white, base dark sh)	Residential Building Envelope	150,280	37,566	0	368,300	556,146	27.0%	6.8%	0.0%	66.2%	0.001	0.015%	817,253
RSF985	Reflective Roof replacement (white metal, base d	Residential Building Envelope	150,280	37,566	0	306,503	494,550	30.4%	7.6%	0.0%	62.0%	0.000	0.013%	953,614
RSF986	Reflective Roof replacement (white metal, base te	Residential Building Envelope	150,280	37,566	0	354,904	542,750	27.7%	6.9%	0.0%	65.4%	0.001	0.015%	846,813
RSF987	Reflective Roof replacement (white, base dark sh	Residential Building Envelope	143,501	37,566	0	354,570	535,638	26.8%	7.0%	0.0%	66.2%	0.001	0.015%	763,776
RSF988	Reflective Roof replacement (white metal, base d	Residential Building Envelope	143,501	37,566	0	295,077	476,145	30.1%	7.9%	0.0%	62.0%	0.000	0.013%	891,214
RSF989	Reflective Roof replacement (white metal, base te	Residential Building Envelope	143,501	37,566	0	341,673	522,741	27.5%	7.2%	0.0%	65.4%	0.001	0.015%	791,402

Measure Information			Measure Cost (Cumulative NPV)					Measure Cost (% of Measure)				Measure Rate Impact		
Component Measure ID	Component Measure Name	Program Name with Measure	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact (\$/mo) ⁽²⁾	% of Total ECCR Cost	Lost Revenues (\$) ⁽³⁾
RSF990	Reflective Roof replacement (white, base dark sh)	Residential Building Envelope	143,501	37,566	0	354,570	535,638	26.8%	7.0%	0.0%	66.2%	0.001	0.015%	763,776
RSF991	Reflective Roof replacement (white metal, base d	Residential Building Envelope	143,501	37,566	0	295,077	476,145	30.1%	7.9%	0.0%	62.0%	0.000	0.013%	891,214
RSF992	Reflective Roof replacement (white metal, base d	Residential Building Envelope	143,501	37,566	0	341,673	522,741	27.5%	7.2%	0.0%	65.4%	0.001	0.015%	791,402
RMO121	Default Window With Sunscreen - SS AC	Residential Building Envelope	290,275	75,629	0	70,235	436,138	66.6%	17.3%	0.0%	16.1%	0.001	0.025%	193,194
RMO147	Default Window With Sunscreen - SS HP	Residential Building Envelope	32,978	8,592	0	8,456	50,027	65.9%	17.2%	0.0%	16.9%	0.000	0.003%	20,860
RSF121	Default Window With Sunscreen - SS AC	Residential Building Envelope	2,692,983	702,888	0	1,469,436	4,865,307	55.4%	14.4%	0.0%	30.2%	0.008	0.227%	2,418,882
RSF147	Default Window With Sunscreen - SS HP	Residential Building Envelope	803,876	209,817	0	450,892	1,464,585	54.9%	14.3%	0.0%	30.8%	0.003	0.068%	696,943
RMF994	Buildsmart 0.68-0.77 (Old 0.71<0.80)	Residential New Construction (BuildSmart®)	2,370,536	491,894	0	6,000,798	8,863,228	26.7%	5.5%	0.0%	67.7%	0.011	0.288%	3,148,927
RSF994	Buildsmart 0.68-0.77 (Old 0.71<0.80)	Residential New Construction (BuildSmart®)	7,060,923	1,472,652	0	21,291,271	29,824,847	23.7%	4.9%	0.0%	71.4%	0.046	1.245%	15,322,295
RMF993	Buildsmart <0.87 Energy Star (Old <0.70)	Residential New Construction (BuildSmart®)	1,164,860	241,789	0	5,696,945	7,103,594	16.4%	3.4%	0.0%	80.2%	0.009	0.238%	2,623,576
RSF993	Buildsmart <0.87 Energy Star (Old <0.70)	Residential New Construction (BuildSmart®)	4,319,923	894,065	0	20,841,416	26,055,404	16.6%	3.4%	0.0%	80.0%	0.027	0.723%	18,965,708
RMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential AC Tune-Up & Maintenance	2,240,844	642,726	0	942,822	3,826,392	58.6%	16.8%	0.0%	24.6%	0.004	0.108%	3,063,793
RMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential AC Tune-Up & Maintenance	436,144	125,140	0	156,257	717,541	60.8%	17.4%	0.0%	21.8%	0.001	0.019%	598,224
RMF138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Residential AC Tune-Up & Maintenance	239,122	68,619	0	99,093	406,983	58.8%	16.9%	0.0%	24.3%	0.000	0.012%	336,328
RMO138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Residential AC Tune-Up & Maintenance	49,550	14,217	0	18,569	82,336	60.2%	17.3%	0.0%	22.6%	0.000	0.002%	66,981
RMF140	Proper Refrigerant Charging and Air Flow	Residential AC Tune-Up & Maintenance	220,991	63,294	0	164,965	449,249	49.2%	14.1%	0.0%	36.7%	0.001	0.017%	606,340
RMO140	Proper Refrigerant Charging and Air Flow	Residential AC Tune-Up & Maintenance	41,802	11,973	0	28,972	82,746	50.5%	14.5%	0.0%	35.0%	0.000	0.003%	118,562
RMF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential AC Tune-Up & Maintenance	2,016,539	577,558	0	1,530,416	4,124,512	48.9%	14.0%	0.0%	37.1%	0.006	0.160%	5,489,350
RMO114	Proper Refrigerant Charging and Air Flow - SS AC	Residential AC Tune-Up & Maintenance	367,946	105,384	0	246,832	720,161	51.1%	14.6%	0.0%	34.3%	0.001	0.028%	1,057,763
RMF301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	2,307,297	718,096	0	3,825,014	6,850,406	33.7%	10.5%	0.0%	55.8%	0.013	0.340%	3,401,163
RMO301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	400,074	124,514	0	663,238	1,187,826	33.7%	10.5%	0.0%	55.8%	0.002	0.059%	589,745
RSF301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	2,687,072	832,834	0	4,485,418	8,000,324	33.5%	10.4%	0.0%	56.1%	0.019	0.505%	4,177,673
CD301	Centrifugal Chiller, 0.53 kW/ton, 500 tons	Business Heating, Ventilating, & Air-Conditioning	1,009,915	43,822	0	9,577,560	10,631,297	9.5%	0.4%	0.0%	90.1%	0.017	0.457%	31,925,857
CL301	Centrifugal Chiller, 0.53 kW/ton, 500 tons	Business Heating, Ventilating, & Air-Conditioning	770,442	33,431	0	7,242,875	8,046,749	9.6%	0.4%	0.0%	90.0%	0.017	0.457%	31,925,857
CD903	VFD for Centrifugal Chiller	Business Heating, Ventilating, & Air-Conditioning	400,601	17,373	0	2,603,698	3,021,672	13.3%	0.6%	0.0%	86.2%	0.003	0.075%	51,550,092
CL903	VFD for Centrifugal Chiller	Business Heating, Ventilating, & Air-Conditioning	307,402	13,331	0	1,997,954	2,318,688	13.3%	0.6%	0.0%	86.2%	0.002	0.058%	39,557,094
CD405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	749,605	30,580	0	23,665,858	24,446,043	3.1%	0.1%	0.0%	96.8%	0.046	1.238%	8,934,076
CL405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	561,965	22,925	0	17,676,667	18,261,557	3.1%	0.1%	0.0%	96.8%	0.034	0.925%	6,873,793
CS405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	229,321	9,355	0	7,274,689	7,513,365	3.1%	0.1%	0.0%	96.8%	0.014	0.381%	2,645,896
CD902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	11,817	480	0	247,528	259,825	4.5%	0.2%	0.0%	95.3%	0.001	0.027%	552,747
CL902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	9,067	369	0	189,941	199,377	4.5%	0.2%	0.0%	95.3%	0.001	0.021%	424,152
CS902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	423	16	0	6,901	7,340	5.8%	0.2%	0.0%	94.0%	0.000	0.000%	27,230
CD321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	258,316	32,912	0	5,369,832	5,661,060	4.6%	0.6%	0.0%	94.9%	0.012	0.324%	10,848,445
CD341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	64,263	8,141	0	1,328,684	1,401,088	4.6%	0.6%	0.0%	94.8%	0.004	0.112%	3,140,106
CL321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	197,769	25,198	0	4,198,203	4,421,170	4.5%	0.6%	0.0%	95.0%	0.009	0.253%	8,031,496
CL341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	49,306	6,246	0	1,045,220	1,100,771	4.5%	0.6%	0.0%	95.0%	0.003	0.088%	2,321,149
CS321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	42,540	5,360	0	858,086	905,985	4.7%	0.6%	0.0%	94.7%	0.003	0.094%	2,229,304
CS341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	15,424	1,944	0	311,123	328,490	4.7%	0.6%	0.0%	94.7%	0.001	0.034%	808,295
CD322	Hybrid Desiccant-DX System (Trane CDQ)	Business Heating, Ventilating, & Air-Conditioning	57,553	7,359	0	1,149,575	1,214,488	4.7%	0.6%	0.0%	94.7%	0.003	0.092%	4,130,905
CL322	Hybrid Desiccant-DX System (Trane CDQ)	Business Heating, Ventilating, & Air-Conditioning	44,048	5,632	0	876,543	926,224	4.8%	0.6%	0.0%	94.6%	0.003	0.070%	3,172,019
CD361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	198,563	25,151	0	3,861,375	4,085,089	4.9%	0.6%	0.0%	94.5%	0.012	0.327%	9,386,404
CL361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	151,917	19,243	0	3,022,445	3,193,605	4.8%	0.6%	0.0%	94.6%	0.009	0.255%	6,946,652
CS361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	57,180	7,233	0	1,066,274	1,130,687	5.1%	0.6%	0.0%	94.3%	0.004	0.097%	2,895,751
CD404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	138,367	16,983	0	1,035,245	1,190,593	11.6%	1.4%	0.0%	87.0%	0.008	0.220%	5,448,487
CL404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	105,886	12,996	0	788,483	907,366	11.7%	1.4%	0.0%	86.9%	0.006	0.167%	4,182,844
CS404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	18,964	2,244	0	56,346	77,554	24.5%	2.9%	0.0%	72.7%	0.000	0.000%	984,433
CD406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	522,592	21,363	0	26,576,545	27,120,500	1.9%	0.1%	0.0%	98.0%	0.051	1.375%	9,367,105
CL406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	56,837	2,124	0	2,910,922	2,969,883	1.9%	0.1%	0.0%	98.0%	0.000	0.000%	1,451,679
CS406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	23,492	878	0	1,232,843	1,257,213	1.9%	0.1%	0.0%	98.1%	0.000	0.000%	486,718
CD317	Thermal Energy Storage	Business Heating, Ventilating, & Air-Conditioning	2,162,605	66,212	0	10,676,814	12,905,632	16.8%	0.5%	0.0%	82.7%	0.021	0.567%	5,615,019
CL317	Thermal Energy Storage	Business Heating, Ventilating, & Air-Conditioning	1,256,503	38,470	0	6,055,570	7,350,544	17.1%	0.5%	0.0%	82.4%	0.012	0.323%	3,315,260
CD141	CFL Hardwired, Modular 18W	Business Lighting	86,513	6,587	0	843,485	936,585	9.2%	0.7%	0.0%	90.1%	0.002	0.050%	3,962,404
CL141	CFL Hardwired, Modular 18W	Business Lighting	63,368	4,821	0	602,738	670,928	9.4%	0.7%	0.0%	89.8%	0.001	0.037%	2,928,874
CS141	CFL Hardwired, Modular 18W	Business Lighting	27,556	2,096	0	242,501	272,154	10.1%	0.8%	0.0%	89.1%	0.001	0.015%	1,321,029
CD152	PSMH, 250 W, electronic ballast	Business Lighting	50,938	3,868	0	415,474	470,280	10.8%	0.8%	0.0%	88.3%	0.000	0.013%	2,537,304
CL152	PSMH, 250 W, electronic ballast	Business Lighting	38,635	2,934	0	305,958	347,527	11.1%	0.8%	0.0%	88.0%	0.000	0.010%	1,947,390

Measure Information			Measure Cost (Cumulative NPV)				Measure Cost (% of Measure)				Measure Rate Impact			
Component Measure ID	Component Measure Name	Program Name with Measure	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact (\$/mo) ⁽²⁾	% of Total ECCR Cost	Lost Revenues ⁽³⁾ (\$)
CS152	PSMH, 250 W, electronic ballast	Business Lighting	10,009	747	0	74,847	85,602	11.7%	0.9%	0.0%	87.4%	0.000	0.004%	712,556
CD112	Premium T8, EB, Reflector	Business Lighting	111,416	8,450	0	4,884,091	5,003,957	2.2%	0.2%	0.0%	97.6%	0.021	0.561%	7,893,905
CD122	ROB Premium T8, EB, Reflector	Business Lighting	186,805	14,421	0	1,012,235	1,213,460	15.4%	1.2%	0.0%	83.4%	0.002	0.041%	8,335,175
CL112	Premium T8, EB, Reflector	Business Lighting	84,563	6,414	0	3,685,730	3,776,707	2.2%	0.2%	0.0%	97.6%	0.016	0.423%	6,063,113
CL122	ROB Premium T8, EB, Reflector	Business Lighting	142,037	10,965	0	735,994	888,996	16.0%	1.2%	0.0%	82.8%	0.001	0.030%	6,407,028
CS112	Premium T8, EB, Reflector	Business Lighting	27,385	2,062	0	1,165,546	1,194,993	2.3%	0.2%	0.0%	97.5%	0.006	0.175%	2,119,650
CS122	ROB Premium T8, EB, Reflector	Business Lighting	46,730	3,599	0	211,332	261,661	17.9%	1.4%	0.0%	80.8%	0.000	0.011%	2,347,170
CD111	Premium T8, Electronic Ballast	Business Lighting	38,073	2,875	0	2,026,356	2,067,303	1.8%	0.1%	0.0%	98.0%	0.010	0.278%	2,801,193
CD121	ROB Premium T8, 1EB	Business Lighting	185,541	14,323	0	1,859,756	2,059,620	9.0%	0.7%	0.0%	90.3%	0.003	0.069%	8,278,806
CL111	Premium T8, Electronic Ballast	Business Lighting	28,251	2,133	0	1,482,810	1,513,194	1.9%	0.1%	0.0%	98.0%	0.008	0.204%	2,103,582
CL121	ROB Premium T8, 1EB	Business Lighting	141,076	10,891	0	1,380,576	1,532,543	9.2%	0.7%	0.0%	90.1%	0.002	0.051%	6,363,699
CS111	Premium T8, Electronic Ballast	Business Lighting	9,205	695	0	392,248	402,148	2.3%	0.2%	0.0%	97.5%	0.002	0.054%	711,029
CS121	ROB Premium T8, 1EB	Business Lighting	31,551	2,416	0	300,133	334,101	9.4%	0.7%	0.0%	89.8%	0.001	0.021%	2,138,479
CD153	High Bay T5	Business Lighting	215,824	16,641	0	1,088,503	1,320,968	16.3%	1.3%	0.0%	82.4%	0.002	0.044%	9,714,955
CL153	High Bay T5	Business Lighting	163,698	12,622	0	786,878	963,197	17.0%	1.3%	0.0%	81.7%	0.001	0.032%	7,455,770
CS153	High Bay T5	Business Lighting	37,224	2,845	0	159,907	199,975	18.6%	1.4%	0.0%	80.0%	0.000	0.012%	2,533,317
CD161	LED Exit Sign	Business Lighting	57,729	4,476	0	161,746	223,951	25.8%	2.0%	0.0%	72.2%	0.000	0.007%	4,544,912
CL161	LED Exit Sign	Business Lighting	44,071	3,417	0	113,081	160,569	27.4%	2.1%	0.0%	70.4%	0.000	0.005%	3,490,366
CD511	Anti-sweat (humidistat) controls	Business Refrigeration	129,263	8,045	0	137,920	275,228	47.0%	2.9%	0.0%	50.1%	0.000	0.012%	2,285,729
CL511	Anti-sweat (humidistat) controls	Business Refrigeration	99,190	6,174	0	105,833	211,197	47.0%	2.9%	0.0%	50.1%	0.000	0.009%	1,753,960
CD506	Compressor VSD retrofit	Business Refrigeration	78,345	4,904	0	329,798	413,047	19.0%	1.2%	0.0%	79.8%	0.001	0.018%	2,268,067
CL506	Compressor VSD retrofit	Business Refrigeration	60,118	3,763	0	253,071	316,952	19.0%	1.2%	0.0%	79.8%	0.001	0.014%	1,740,407
CD609	Demand Hot Gas Defrost	Business Refrigeration	19,742	1,208	0	132,959	153,909	12.8%	0.8%	0.0%	86.4%	0.001	0.017%	218,011
CL509	Demand Hot Gas Defrost	Business Refrigeration	15,149	927	0	102,027	118,103	12.8%	0.8%	0.0%	86.4%	0.000	0.013%	167,292
CS609	Demand Hot Gas Defrost	Business Refrigeration	4,566	279	0	29,905	34,750	13.1%	0.8%	0.0%	86.1%	0.000	0.000%	51,119
CD513	High R-Value Glass Doors	Business Refrigeration	51,973	3,199	0	191,966	247,138	21.0%	1.3%	0.0%	77.7%	0.001	0.021%	1,200,620
CL513	High R-Value Glass Doors	Business Refrigeration	39,881	2,455	0	147,305	189,642	21.0%	1.3%	0.0%	77.7%	0.001	0.016%	921,299
CS513	High R-Value Glass Doors	Business Refrigeration	1,816	102	0	2,703	4,621	39.3%	2.2%	0.0%	58.5%	0.000	0.000%	60,890
CD604	Evaporator fan controller for MT walk-ins	Business Refrigeration	15,476	966	0	59,176	75,618	20.5%	1.3%	0.0%	78.3%	0.000	0.006%	214,366
CL504	Evaporator fan controller for MT walk-ins	Business Refrigeration	11,876	741	0	45,409	58,026	20.5%	1.3%	0.0%	78.3%	0.000	0.004%	164,495
CD404	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	62,815	3,763	0	443,676	510,255	12.3%	0.7%	0.0%	87.0%	0.003	0.094%	2,335,066
CL404	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	48,070	2,880	0	337,921	388,871	12.4%	0.7%	0.0%	86.9%	0.003	0.072%	1,792,647
CS404	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	8,592	497	0	24,148	33,237	25.8%	1.5%	0.0%	72.7%	0.000	0.000%	421,900
CD515	Oversized Air Cooled Condenser	Business Refrigeration	262,558	16,436	0	421,146	700,141	37.5%	2.3%	0.0%	60.2%	0.001	0.029%	4,096,931
CL515	Oversized Air Cooled Condenser	Business Refrigeration	201,475	12,612	0	323,168	537,255	37.5%	2.3%	0.0%	60.2%	0.001	0.023%	3,143,790
CD313	Ceiling Insulation	Business Building Envelope	5,852	614	0	74,106	80,572	7.3%	0.8%	0.0%	92.0%	0.000	0.008%	155,065
CD334	Ceiling Insulation	Business Building Envelope	17,863	1,878	0	146,984	166,725	10.7%	1.1%	0.0%	88.2%	0.001	0.015%	456,971
CD349	Ceiling Insulation	Business Building Envelope	2,077	219	0	10,306	12,602	16.5%	1.7%	0.0%	81.8%	0.000	0.001%	46,694
CL313	Ceiling Insulation	Business Building Envelope	5,201	547	0	67,133	72,880	7.1%	0.8%	0.0%	92.1%	0.000	0.007%	128,140
CL334	Ceiling Insulation	Business Building Envelope	17,379	1,835	0	145,832	165,046	10.5%	1.1%	0.0%	88.4%	0.000	0.012%	378,662
CL349	Ceiling Insulation	Business Building Envelope	1,616	171	0	8,520	10,307	15.7%	1.7%	0.0%	82.7%	0.000	0.001%	35,217
CS313	Ceiling Insulation	Business Building Envelope	60,641	6,381	0	783,841	850,862	7.1%	0.7%	0.0%	92.1%	0.003	0.075%	1,480,538
CS334	Ceiling Insulation	Business Building Envelope	208,904	22,090	0	1,753,275	1,984,269	10.5%	1.1%	0.0%	88.4%	0.005	0.140%	4,432,970
CS349	Ceiling Insulation	Business Building Envelope	19,429	2,054	0	102,623	124,106	15.7%	1.7%	0.0%	82.7%	0.000	0.009%	412,284
CD315	Cool Roof - Chiller	Business Building Envelope	265,485	28,178	0	6,649,934	6,943,598	3.8%	0.4%	0.0%	95.8%	0.014	0.386%	6,231,290
CD336	Cool Roof - DX	Business Building Envelope	1,616,151	171,668	0	40,555,507	42,343,325	3.8%	0.4%	0.0%	95.8%	0.088	2.370%	38,346,933
CD351	Cool Roof - DX	Business Building Envelope	219,710	23,271	0	5,495,235	5,738,215	3.8%	0.4%	0.0%	95.8%	0.014	0.369%	5,124,954
CL315	Cool Roof - Chiller	Business Building Envelope	254,770	27,109	0	6,328,742	6,610,620	3.9%	0.4%	0.0%	95.7%	0.011	0.304%	5,456,292
CL336	Cool Roof - DX	Business Building Envelope	1,261,373	133,980	0	31,785,782	33,181,134	3.8%	0.4%	0.0%	95.8%	0.069	1.861%	30,085,057
CL351	Cool Roof - DX	Business Building Envelope	169,945	17,998	0	4,269,087	4,457,029	3.8%	0.4%	0.0%	95.8%	0.011	0.288%	3,989,978
CS315	Cool Roof - Chiller	Business Building Envelope	80,158	8,531	0	2,145,140	2,233,829	3.6%	0.4%	0.0%	96.0%	0.004	0.101%	1,512,202
CS336	Cool Roof - DX	Business Building Envelope	457,185	48,571	0	12,413,393	12,919,149	3.5%	0.4%	0.0%	96.1%	0.026	0.714%	9,618,305
CS351	Cool Roof - DX	Business Building Envelope	72,148	7,639	0	1,954,579	2,034,366	3.5%	0.4%	0.0%	96.1%	0.005	0.133%	1,505,085
CD314	Roof Insulation	Business Building Envelope	6,660	702	0	114,613	121,975	5.5%	0.6%	0.0%	94.0%	0.000	0.010%	189,183
CD335	Roof Insulation	Business Building Envelope	24,501	2,594	0	242,048	269,143	9.1%	1.0%	0.0%	89.9%	0.001	0.017%	657,423
CD350	Roof Insulation	Business Building Envelope	3,982	425	0	23,839	28,246	14.1%	1.5%	0.0%	84.4%	0.000	0.001%	77,947

Measure Information			Measure Cost (Cumulative NPV)					Measure Cost (% of Measure)				Measure Rate Impact		
Component Measure ID	Component Measure Name	Program Name with Measure	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact (\$/mo) ⁽²⁾	% of Total ECCR Cost	Lost Revenues (\$ ⁽³⁾)
CL314	Roof Insulation	Business Building Envelope	5,391	568	0	98,151	104,110	5.2%	0.5%	0.0%	94.3%	0.000	0.008%	135,077
CL335	Roof Insulation	Business Building Envelope	19,834	2,100	0	215,527	237,461	8.4%	0.9%	0.0%	90.8%	0.001	0.015%	469,438
CL350	Roof Insulation	Business Building Envelope	3,224	344	0	22,356	25,924	12.4%	1.3%	0.0%	86.2%	0.000	0.001%	55,670
CS314	Roof Insulation	Business Building Envelope	394	42	0	6,438	6,874	5.7%	0.6%	0.0%	93.7%	0.000	0.001%	12,355
CS335	Roof Insulation	Business Building Envelope	1,449	153	0	13,074	14,677	9.9%	1.0%	0.0%	89.1%	0.000	0.001%	42,923
CS350	Roof Insulation	Business Building Envelope	236	25	0	1,216	1,477	15.9%	1.7%	0.0%	82.4%	0.000	0.000%	5,089
CD311	Window Film (Standard)	Business Building Envelope	3,636	371	0	121,892	125,899	2.9%	0.3%	0.0%	96.8%	0.000	0.000%	183,260
CD332	Window Film (Standard)	Business Building Envelope	32,047	3,361	0	542,664	578,072	5.5%	0.6%	0.0%	93.9%	0.002	0.058%	1,636,597
CD347	Window Film (Standard)	Business Building Envelope	2,192	230	0	26,282	28,703	7.6%	0.8%	0.0%	91.6%	0.000	0.003%	111,918
CL311	Window Film (Standard)	Business Building Envelope	2,856	291	0	97,601	100,749	2.8%	0.3%	0.0%	96.9%	0.000	0.000%	137,585
CL332	Window Film (Standard)	Business Building Envelope	25,159	2,638	0	443,094	470,892	5.3%	0.6%	0.0%	94.1%	0.002	0.048%	1,228,137
CL347	Window Film (Standard)	Business Building Envelope	1,721	180	0	21,800	23,701	7.3%	0.8%	0.0%	92.0%	0.000	0.002%	83,986
CS311	Window Film (Standard)	Business Building Envelope	2,216	212	0	68,167	70,595	3.1%	0.3%	0.0%	96.6%	0.000	0.000%	140,968
CS332	Window Film (Standard)	Business Building Envelope	41,846	4,369	0	617,038	663,252	6.3%	0.7%	0.0%	93.0%	0.003	0.080%	2,549,697
CS347	Window Film (Standard)	Business Building Envelope	2,861	299	0	27,978	31,138	9.2%	1.0%	0.0%	89.9%	0.000	0.004%	174,330
CD603	Heat Pump Water Heater (air source)	Business Water Heating	417,702	9,102	0	2,690,671	3,117,476	13.4%	0.3%	0.0%	86.3%	0.006	0.159%	6,695,579
CL603	Heat Pump Water Heater (air source)	Business Water Heating	185,528	4,007	0	1,238,456	1,427,991	13.0%	0.3%	0.0%	86.7%	0.005	0.122%	3,825,202
CS603	Heat Pump Water Heater (air source)	Business Water Heating	8,688	172	0	41,067	49,927	17.4%	0.3%	0.0%	82.3%	0.000	0.000%	256,794
CD608	Heat Recovery Unit	Business Water Heating	77,272	1,656	0	974,930	1,053,857	7.3%	0.2%	0.0%	92.5%	0.000	0.000%	506,481
CL608	Heat Recovery Unit	Business Water Heating	59,295	1,270	0	748,115	808,680	7.3%	0.2%	0.0%	92.5%	0.000	0.000%	388,650
CS608	Heat Recovery Unit	Business Water Heating	24,748	530	0	313,233	338,511	7.3%	0.2%	0.0%	92.5%	0.000	0.000%	159,986
CD306	VFD for Chiller Pumps and Towers	Business Motors	15,987	2,171	0	17,889	36,046	44.3%	6.0%	0.0%	49.6%	0.000	0.002%	660,424
CL306	VFD for Chiller Pumps and Towers	Business Motors	12,267	1,666	0	13,727	27,660	44.3%	6.0%	0.0%	49.6%	0.000	0.001%	506,778

(1) Program-specific administrative costs for these measures total \$89.2 million NPV. To that, FPL has added \$34.7 million NPV of "common expenses".

These common expenses, though not program specific, were added pro-rata to measure costs in order to comply with Staff's data request.

(2) These measures represent approximately 51% of the total DSM Plan costs from 2011. Assumes 1,200 kWh/month consumption.

(3) Represents the 2010-2019 net present value of Lost Revenues associated with incremental participation.

Total ECCR Cost \$/mo (1,200 kWh)
3.70

Q.

For the following questions (6-9), only consider those programs which feature multiple measures. Please provide the name of each measure, and indicate with which program it is associated. Include all measures on a single table, adding columns as necessary.

Please provide, for each measure identified by the criteria above, the cumulative net present value of expenditures required over the period 2010 through 2019. Please indicate the type of expenditure, separating them into categories including administrative, marketing, equipment, operations & maintenance, and incentives/rebates to customers. As part of this response, please also provide the percentage that each category represents of the total measure expenditures. Indicate the first year rate impact of these expenditures, percentage of the total Energy Conservation Cost Recovery Clause for the first year of these expenditures, and the lost revenues associated with the measure. Please complete the table below and provide an electronic copy in Excel (.xls file format) with the hard copy response.

Measure Information - Total Costs		
Component Measure Name	-	
Program Name with Measure	-	
Measure Cost (Cumulative NPV)		
Administrative	(\$)	
Education, Surveys, Marketing	(\$)	
Equipment, Installation, O&M	(\$)	
Incentives / Rebates	(\$)	
Total Cost	(\$)	
Measure Cost (% of Measure)		
Administrative	(%)	
Education, Surveys, Marketing	(%)	
Equipment, Installation, O&M	(%)	
Incentives / Rebates	(%)	
Measure Rate Impact		
Residential Rate Impact	(\$/mo)	
Percentage of Total ECCR Rate	(%)	
Lost Revenues	(\$)	

A.

Please see Table - Staff's 1st Data Request No. 7 - Revised for the requested information.

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Measure Information			Measure Cost (Cumulative NPV)				Measure Cost (% of Measure)				Measure Rate Impact			
Component Measure ID	Component Measure Name	Program Name with Measure	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact (\$/mo) ⁽²⁾	% of Total ECCR Cost	Lost Revenues (\$) ⁽³⁾
LRMF192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	31,586	4,679	0	203,167	239,432	13.2%	2.0%	0.0%	84.9%	0.000	0.012%	262,420
LRMO192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	7,721	1,144	0	49,663	58,528	13.2%	2.0%	0.0%	84.9%	0.000	0.003%	52,596
LRSF192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	30,884	4,575	0	198,652	234,111	13.2%	2.0%	0.0%	84.9%	0.000	0.012%	270,095
LRMF127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	223,591	33,339	0	303,695	560,625	39.9%	5.9%	0.0%	54.2%	0.001	0.020%	134,495
LRMO127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	54,656	8,150	0	74,237	137,042	39.9%	5.9%	0.0%	54.2%	0.000	0.005%	34,717
LRSF127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	218,622	32,598	0	296,947	548,167	39.9%	5.9%	0.0%	54.2%	0.001	0.019%	212,342
LRMF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	210,562	31,468	0	284,668	526,698	40.0%	6.0%	0.0%	54.0%	0.001	0.016%	260,378
LRMO112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	51,471	7,692	0	69,586	128,748	40.0%	6.0%	0.0%	54.0%	0.000	0.004%	67,217
LRSF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	205,883	30,769	0	278,342	514,994	40.0%	6.0%	0.0%	54.0%	0.001	0.015%	540,896
LRMF114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	126,344	18,716	0	267,019	412,079	30.7%	4.5%	0.0%	64.8%	0.001	0.020%	373,708
LRMO114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	30,884	4,575	0	65,271	100,731	30.7%	4.5%	0.0%	64.8%	0.000	0.005%	96,472
LRSF114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	123,536	18,300	0	261,085	402,922	30.7%	4.5%	0.0%	64.8%	0.001	0.020%	590,003
LRMF231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	490,945	429,040	0	1,551,904	2,471,889	19.9%	17.4%	0.0%	62.8%	0.004	0.105%	4,885,100
LRMO231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	120,009	104,876	0	379,354	604,239	19.9%	17.4%	0.0%	62.8%	0.001	0.026%	1,194,136
LRSF231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	480,035	419,506	0	1,517,417	2,416,958	19.9%	17.4%	0.0%	62.8%	0.004	0.103%	4,776,543
LRMF407	Faucet Aerators	Residential Power Savers Energy Audit	357,250	311,269	0	95,634	764,153	46.8%	40.7%	0.0%	12.5%	0.002	0.043%	921,989
LRMO407	Faucet Aerators	Residential Power Savers Energy Audit	87,328	76,088	0	23,377	186,793	46.8%	40.7%	0.0%	12.5%	0.000	0.010%	262,719
LRSF407	Faucet Aerators	Residential Power Savers Energy Audit	349,311	304,352	0	93,509	747,172	46.8%	40.7%	0.0%	12.5%	0.002	0.042%	1,385,039
LRMF405	Low Flow Showerhead	Residential Power Savers Energy Audit	357,250	311,269	0	191,269	859,787	41.6%	36.2%	0.0%	22.2%	0.002	0.048%	2,331,614
LRMO405	Low Flow Showerhead	Residential Power Savers Energy Audit	87,328	76,088	0	46,755	210,170	41.6%	36.2%	0.0%	22.2%	0.000	0.012%	672,265
LRSF405	Low Flow Showerhead	Residential Power Savers Energy Audit	349,311	304,352	0	187,018	840,681	41.6%	36.2%	0.0%	22.2%	0.002	0.047%	3,544,133
LRMF406	Pipe Wrap	Residential Power Savers Energy Audit	357,250	311,269	0	382,537	1,051,055	34.0%	29.6%	0.0%	36.4%	0.002	0.060%	613,016
LRMO406	Pipe Wrap	Residential Power Savers Energy Audit	87,328	76,088	0	93,509	256,925	34.0%	29.6%	0.0%	36.4%	0.001	0.015%	174,259
LRSF406	Pipe Wrap	Residential Power Savers Energy Audit	349,311	304,352	0	374,036	1,027,699	34.0%	29.6%	0.0%	36.4%	0.002	0.058%	918,683
LRMF192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	42,124	10,125	0	871,188	923,437	4.6%	1.1%	0.0%	94.3%	0.002	0.054%	1,047,126
LRMO192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	10,297	2,475	0	212,957	225,729	4.6%	1.1%	0.0%	94.3%	0.000	0.013%	209,871
LRSF192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	41,188	9,900	0	851,289	902,916	4.6%	1.1%	0.0%	94.3%	0.002	0.053%	1,077,753
LRMF301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	518,244	124,699	0	6,222,774	6,865,587	7.5%	1.8%	0.0%	90.6%	0.015	0.404%	1,742,944
LRMO301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	126,682	30,450	0	1,521,123	1,678,255	7.5%	1.8%	0.0%	90.6%	0.004	0.099%	426,053
LRSF301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	506,727	121,800	0	6,084,491	6,713,018	7.5%	1.8%	0.0%	90.6%	0.015	0.395%	1,704,212
LRMF116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	309,377	74,364	0	2,379,589	2,763,329	11.2%	2.7%	0.0%	86.1%	0.006	0.162%	997,060
LRMO116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	75,625	18,178	0	581,677	675,481	11.2%	2.7%	0.0%	86.1%	0.001	0.040%	318,505
LRSF116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	302,502	72,711	0	2,326,709	2,701,922	11.2%	2.7%	0.0%	86.1%	0.006	0.158%	2,248,925
LRMF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	77,083	18,528	0	2,768,886	2,864,496	2.7%	0.6%	0.0%	96.7%	0.006	0.169%	1,628,721
LRMO124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	18,842	4,529	0	1,035,945	1,059,317	1.8%	0.4%	0.0%	97.8%	0.002	0.063%	363,512
LRSF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	75,370	18,116	0	4,658,286	4,751,772	1.6%	0.4%	0.0%	98.0%	0.010	0.281%	3,808,217
LRMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	264,563	63,761	0	1,148,421	1,476,744	17.9%	4.3%	0.0%	77.8%	0.002	0.056%	1,038,976
LRMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	64,671	15,586	0	280,725	360,982	17.9%	4.3%	0.0%	77.8%	0.001	0.014%	268,213
LRSF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	258,684	62,344	0	1,122,900	1,443,928	17.9%	4.3%	0.0%	77.8%	0.002	0.054%	2,158,319
LRMF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	168,495	40,501	0	1,144,990	1,353,986	12.4%	3.0%	0.0%	84.6%	0.003	0.079%	1,491,194
LRMO114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	41,188	9,900	0	279,887	330,974	12.4%	3.0%	0.0%	84.6%	0.001	0.019%	384,950
LRSF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	164,750	39,601	0	1,119,546	1,323,897	12.4%	3.0%	0.0%	84.6%	0.003	0.078%	2,354,270
RMF101	14 SEER Split-System Air Conditioner	Residential Air-Conditioning	2,672,255	241,238	0	8,915,313	11,828,807	22.6%	2.0%	0.0%	75.4%	0.025	0.669%	12,748,834
RMF102	15 SEER Split-System Air Conditioner	Residential Air-Conditioning	3,394,987	308,356	0	19,974,827	23,678,171	14.3%	1.3%	0.0%	84.4%	0.039	1.059%	20,660,964
RMO101	14 SEER Split-System Air Conditioner	Residential Air-Conditioning	510,028	46,044	0	2,095,136	2,651,208	19.2%	1.7%	0.0%	79.0%	0.006	0.151%	2,468,119
RMO102	15 SEER Split-System Air Conditioner	Residential Air-Conditioning	665,064	60,407	0	4,016,008	4,741,479	14.0%	1.3%	0.0%	84.7%	0.008	0.213%	4,432,935
RSF101	14 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	5,344,988	485,977	0	21,010,636	26,841,601	19.9%	1.8%	0.0%	78.3%	0.043	1.154%	29,106,330
RSF102	15 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	4,287,246	388,215	0	48,903,186	53,578,647	8.0%	0.7%	0.0%	91.3%	0.103	2.785%	38,840,077
RSF103	17 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	1,567,641	142,571	0	44,134,260	45,844,472	3.4%	0.3%	0.0%	96.3%	0.073	1.976%	19,757,737
RSF104	19 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	467,473	42,530	0	10,859,777	11,369,780	4.1%	0.4%	0.0%	95.5%	0.018	0.481%	7,389,748
RSF962	16 SEER Split-System Air Conditioner	Residential Air-Conditioning	2,170,874	194,600	0	33,591,500	35,956,973	6.0%	0.5%	0.0%	93.4%	0.042	1.141%	26,147,172
RSF963	18 SEER Split-System Air Conditioner	Residential Air-Conditioning	1,378,884	125,449	0	30,828,222	32,332,555	4.3%	0.4%	0.0%	95.3%	0.051	1.368%	19,197,223
RSF964	20 SEER Split-System Air Conditioner	Residential Air-Conditioning	232,445	21,146	0	11,341,679	11,595,270	2.0%	0.2%	0.0%	97.8%	0.018	0.491%	4,071,226
RMF105	14 SEER Split-System Heat Pump	Residential Air-Conditioning	263,559	23,926	0	1,104,809	1,392,294	18.9%	1.7%	0.0%	79.4%	0.002	0.061%	1,596,531
RMF106	15 SEER Split-System Heat Pump	Residential Air-Conditioning	135,712	12,056	0	1,388,575	1,536,344	8.8%	0.8%	0.0%	90.4%	0.005	0.142%	1,374,112
RMF131	14 SEER Split-System Heat Pump	Residential Air-Conditioning	292,442	26,548	0	1,225,883	1,544,874	18.9%	1.7%	0.0%	79.4%	0.003	0.068%	1,771,493

Measure Information			Measure Cost (Cumulative NPV)				Measure Cost (% of Measure)				Measure Rate Impact			
Component Measure ID	Component Measure Name	Program Name with Measure	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact (\$/mo) ⁽²⁾	% of Total ECCR Cost	Lost Revenues (\$) ⁽³⁾
RMF132	15 SEER Split-System Heat Pump	Residential Air-Conditioning	150,585	13,377	0	1,540,748	1,704,710	8.8%	0.8%	0.0%	90.4%	0.006	0.157%	1,524,700
RMO105	14 SEER Split-System Heat Pump	Residential Air-Conditioning	38,326	3,460	0	161,052	202,838	18.9%	1.7%	0.0%	79.4%	0.000	0.012%	247,910
RMO106	15 SEER Split-System Heat Pump	Residential Air-Conditioning	55,388	5,031	0	583,539	643,957	8.6%	0.8%	0.0%	90.6%	0.001	0.029%	444,839
RMO131	14 SEER Split-System Heat Pump	Residential Air-Conditioning	42,680	3,853	0	179,349	225,882	18.9%	1.7%	0.0%	79.4%	0.000	0.013%	276,075
RMO132	15 SEER Split-System Heat Pump	Residential Air-Conditioning	61,680	5,602	0	649,834	717,117	8.6%	0.8%	0.0%	90.6%	0.001	0.032%	495,377
RSF105	14 SEER Split-System Heat Pump - 13SSAC	Residential Air-Conditioning	1,118,084	101,572	0	3,644,813	4,864,469	23.0%	2.1%	0.0%	74.9%	0.008	0.211%	8,557,863
RSF106	15 SEER Split-System Heat Pump - 13SSAC	Residential Air-Conditioning	1,184,013	107,516	0	13,198,634	14,490,163	8.2%	0.7%	0.0%	91.1%	0.024	0.648%	12,481,719
RSF107	17 SEER Split-System Heat Pump - 13SSAC	Residential Air-Conditioning	334,174	30,243	0	14,114,511	14,478,928	2.3%	0.2%	0.0%	97.5%	0.027	0.740%	5,721,541
RSF131	14 SEER Split-System Heat Pump- SS HP	Residential Air-Conditioning	1,451,841	131,892	0	4,732,817	6,316,549	23.0%	2.1%	0.0%	74.9%	0.010	0.274%	11,112,448
RSF132	15 SEER Split-System Heat Pump- SS HP	Residential Air-Conditioning	1,549,478	140,725	0	17,263,657	18,953,860	8.2%	0.7%	0.0%	91.1%	0.031	0.842%	16,261,666
RSF133	17 SEER Split-System Heat Pump- SS HP	Residential Air-Conditioning	437,801	39,639	0	18,406,705	18,884,145	2.3%	0.2%	0.0%	97.5%	0.036	0.960%	7,206,813
RSF965	16 SEER Split-System Heat Pump	Residential Air-Conditioning	985,535	89,358	0	21,977,751	23,052,644	4.3%	0.4%	0.0%	95.3%	0.041	1.097%	13,544,112
RSF972	16 SEER Split-System Heat Pump	Residential Air-Conditioning	1,289,834	116,970	0	28,745,184	30,151,988	4.3%	0.4%	0.0%	95.3%	0.053	1.424%	17,631,394
RMF108	Geothermal Heat Pump	Residential Air-Conditioning	38,200	3,465	0	291,076	332,741	11.5%	1.0%	0.0%	87.5%	0.001	0.015%	303,233
RMF134	Geothermal Heat Pump	Residential Air-Conditioning	4,186	380	0	31,899	36,465	11.5%	1.0%	0.0%	87.5%	0.000	0.002%	33,231
RMO108	Geothermal Heat Pump	Residential Air-Conditioning	3,556	323	0	29,720	33,599	10.6%	1.0%	0.0%	88.5%	0.000	0.002%	21,122
RMO134	Geothermal Heat Pump	Residential Air-Conditioning	404	37	0	3,376	3,817	10.6%	1.0%	0.0%	88.5%	0.000	0.000%	2,400
RSF108	Geothermal Heat Pump	Residential Air-Conditioning	57,369	5,212	0	375,860	438,441	13.1%	1.2%	0.0%	85.7%	0.001	0.019%	575,832
RSF134	Geothermal Heat Pump	Residential Air-Conditioning	17,125	1,556	0	115,167	133,847	12.8%	1.2%	0.0%	86.0%	0.000	0.006%	171,890
RMF969	Plenum Seal - SC base	Residential Air-Conditioning	453,277	41,082	0	5,506,914	6,001,273	7.6%	0.7%	0.0%	91.8%	0.011	0.302%	7,711,639
RMF976	Plenum Seal - HP base	Residential Air-Conditioning	49,674	4,502	0	603,497	657,674	7.6%	0.7%	0.0%	91.8%	0.001	0.033%	845,111
RMO969	Plenum Seal - SC base	Residential Air-Conditioning	82,707	7,496	0	954,845	1,045,048	7.9%	0.7%	0.0%	91.4%	0.002	0.053%	1,552,660
RMO976	Plenum Seal - HP base	Residential Air-Conditioning	9,396	852	0	108,479	118,727	7.9%	0.7%	0.0%	91.4%	0.000	0.006%	176,397
RSF969	Plenum Seal - SC base	Residential Air-Conditioning	716,601	65,151	0	6,185,768	6,967,520	10.3%	0.9%	0.0%	88.8%	0.011	0.305%	17,652,404
RSF976	Plenum Seal - HP base	Residential Air-Conditioning	184,587	16,730	0	1,610,603	1,811,920	10.2%	0.9%	0.0%	88.9%	0.003	0.091%	4,981,312
RMF109	AC Proper Sizing	Residential Air-Conditioning	523,011	47,402	0	3,929,020	4,499,434	11.6%	1.1%	0.0%	87.3%	0.008	0.226%	1,716,499
RMF135	HVAC Proper Sizing - SS HP	Residential Air-Conditioning	57,316	5,195	0	430,046	492,557	11.6%	1.1%	0.0%	87.3%	0.001	0.025%	189,287
RMO109	AC Proper Sizing	Residential Air-Conditioning	95,431	8,649	0	708,935	813,015	11.7%	1.1%	0.0%	87.2%	0.002	0.041%	330,845
RMO135	HVAC Proper Sizing - SS HP	Residential Air-Conditioning	10,842	983	0	80,797	92,621	11.7%	1.1%	0.0%	87.2%	0.000	0.005%	37,022
RSF109	AC Proper Sizing	Residential Air-Conditioning	758,389	68,828	0	4,981,750	5,808,967	13.1%	1.2%	0.0%	85.8%	0.010	0.276%	3,859,209
RSF135	HVAC Proper Sizing - SS HP	Residential Air-Conditioning	269,867	24,576	0	1,753,372	2,047,815	13.2%	1.2%	0.0%	85.6%	0.003	0.082%	1,248,749
RMF116	Duct Repair - SS AC	Residential Duct System Testing and Repair	4,215,605	625,140	0	6,447,702	11,288,448	37.3%	5.5%	0.0%	57.1%	0.017	4.599%	4,971,671
RMF142	Duct Repair - SS HP	Residential Duct System Testing and Repair	509,657	75,692	0	774,624	1,359,973	37.5%	5.6%	0.0%	57.0%	0.002	0.050%	572,781
RMO116	Duct Repair - SS AC	Residential Duct System Testing and Repair	1,869,779	278,054	0	3,504,527	5,652,360	33.1%	4.9%	0.0%	62.0%	0.007	0.195%	2,555,948
RMO142	Duct Repair - SS HP	Residential Duct System Testing and Repair	212,425	31,590	0	398,147	642,162	33.1%	4.9%	0.0%	62.0%	0.001	0.022%	290,380
RSF116	Duct Repair - SS AC	Residential Duct System Testing and Repair	15,280,027	2,275,400	0	22,415,589	39,971,016	38.2%	5.7%	0.0%	56.1%	0.047	1.265%	33,822,408
RSF142	Duct Repair - SS HP	Residential Duct System Testing and Repair	4,555,733	678,404	0	6,682,239	11,916,375	38.2%	5.7%	0.0%	56.1%	0.014	0.378%	10,067,903
RMF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	1,167,366	308,554	0	10,993,533	12,469,452	9.4%	2.5%	0.0%	88.2%	0.019	0.525%	8,568,361
RMF150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	121,403	32,080	0	1,139,138	1,292,620	9.4%	2.5%	0.0%	88.1%	0.002	0.053%	764,084
RMF202	Ceiling R-0 to R-19 Insulation- Room AC	Residential Building Envelope	158,459	41,883	0	1,492,273	1,692,616	9.4%	2.5%	0.0%	88.2%	0.003	0.071%	1,163,078
RMO124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	187,371	49,469	0	2,223,228	2,460,067	7.6%	2.0%	0.0%	90.4%	0.004	0.102%	1,367,928
RMO150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	8,635	2,281	0	90,307	101,222	8.5%	2.3%	0.0%	89.2%	0.000	0.005%	54,903
RMO202	Ceiling R-0 to R-19 Insulation- Room AC	Residential Building Envelope	13,083	3,454	0	155,231	171,768	7.6%	2.0%	0.0%	90.4%	0.000	0.007%	95,512
RSF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	796,267	210,467	0	11,387,623	12,394,357	6.4%	1.7%	0.0%	91.9%	0.019	0.523%	13,976,058
RSF150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	237,692	62,826	0	3,575,163	3,875,680	6.1%	1.6%	0.0%	92.2%	0.006	0.164%	3,716,835
RSF202	Ceiling R-0 to R-19 Insulation- Room AC	Residential Building Envelope	43,217	11,423	0	599,651	654,291	6.6%	1.7%	0.0%	91.6%	0.001	0.028%	806,158
RMF971	Reflective Roof Coating	Residential Building Envelope	1,405,960	336,477	0	59,377,083	61,119,520	2.3%	0.6%	0.0%	97.1%	0.064	1.737%	46,924,363
RMF978	Reflective Roof Coating	Residential Building Envelope	156,035	37,386	0	6,591,066	6,784,488	2.3%	0.6%	0.0%	97.1%	0.007	0.193%	5,205,558
RSF970	Reflective Roof replacement (light colored)	Residential Building Envelope	368,017	96,372	0	1,410,864	1,875,253	19.6%	5.1%	0.0%	75.2%	0.002	0.049%	851,148
RSF977	Reflective Roof (replacement-light colored)	Residential Building Envelope	109,856	28,768	0	421,153	559,777	19.6%	5.1%	0.0%	75.2%	0.001	0.015%	254,074
RSF984	Reflective Roof replacement (white, base dark sh)	Residential Building Envelope	150,280	37,566	0	368,300	556,146	27.0%	6.8%	0.0%	66.2%	0.001	0.015%	817,253
RSF985	Reflective Roof replacement (white metal, base d	Residential Building Envelope	150,280	37,566	0	306,503	494,350	30.4%	7.6%	0.0%	62.0%	0.000	0.013%	953,614
RSF986	Reflective Roof replacement (white metal, base te	Residential Building Envelope	150,280	37,566	0	354,904	542,750	27.7%	6.9%	0.0%	65.4%	0.001	0.015%	846,813
RSF987	Reflective Roof replacement (white, base dark sh)	Residential Building Envelope	143,501	37,566	0	354,570	535,638	26.8%	7.0%	0.0%	66.2%	0.001	0.015%	763,776
RSF988	Reflective Roof replacement (white metal, base d	Residential Building Envelope	143,501	37,566	0	295,077	476,145	30.1%	7.9%	0.0%	62.0%	0.000	0.013%	891,214
RSF989	Reflective Roof replacement (white metal, base te	Residential Building Envelope	143,501	37,566	0	341,673	522,741	27.5%	7.2%	0.0%	65.4%	0.001	0.015%	791,402

Measure Information			Measure Cost (Cumulative NPV)					Measure Cost (% of Measure)				Measure Rate Impact		
Component Measure ID	Component Measure Name	Program Name with Measure	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact (\$/mo) ⁽²⁾	% of Total ECCR Cost	Lost Revenues (\$) ⁽³⁾
RSF990	Reflective Roof replacement (white, base dark sh)	Residential Building Envelope	143,501	37,566	0	354,570	535,638	26.8%	7.0%	0.0%	66.2%	0.001	0.015%	763,776
RSF991	Reflective Roof replacement (white metal, base d	Residential Building Envelope	143,501	37,566	0	295,077	476,145	30.1%	7.9%	0.0%	62.0%	0.000	0.013%	891,214
RSF992	Reflective Roof replacement (white metal, base te	Residential Building Envelope	143,501	37,566	0	341,673	522,741	27.5%	7.2%	0.0%	65.4%	0.001	0.015%	791,402
RMO121	Default Window With Sunscreen - SS AC	Residential Building Envelope	290,275	75,629	0	70,235	436,138	66.6%	17.3%	0.0%	16.1%	0.001	0.025%	193,194
RMO147	Default Window With Sunscreen - SS HP	Residential Building Envelope	32,978	8,592	0	8,456	50,027	65.9%	17.2%	0.0%	16.9%	0.000	0.003%	20,860
RSF121	Default Window With Sunscreen - SS AC	Residential Building Envelope	2,692,983	702,888	0	1,469,436	4,865,307	55.4%	14.4%	0.0%	30.2%	0.008	0.227%	2,418,882
RSF147	Default Window With Sunscreen - SS HP	Residential Building Envelope	803,876	209,817	0	450,892	1,464,585	54.9%	14.3%	0.0%	30.8%	0.003	0.068%	696,943
RMF994	Buildsmart 0.68-0.77 (Old 0.71<0.80)	Residential New Construction (BuildSmart®)	2,370,536	491,894	0	6,000,798	8,863,228	26.7%	5.5%	0.0%	67.7%	0.011	0.288%	3,148,927
RSF994	Buildsmart 0.68-0.77 (Old 0.71<0.80)	Residential New Construction (BuildSmart®)	7,060,923	1,472,652	0	21,291,271	29,824,847	23.7%	4.9%	0.0%	71.4%	0.046	1.245%	15,322,295
RMF993	Buildsmart <0.67 Energy Star (Old <0.70)	Residential New Construction (BuildSmart®)	1,164,860	241,789	0	5,696,945	7,103,594	16.4%	3.4%	0.0%	80.2%	0.009	0.238%	2,623,576
RSF993	Buildsmart <0.67 Energy Star (Old <0.70)	Residential New Construction (BuildSmart®)	4,319,923	894,065	0	20,841,416	26,055,404	16.6%	3.4%	0.0%	80.0%	0.027	0.723%	18,965,708
RMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential AC Tune-Up & Maintenance	2,240,844	642,726	0	942,822	3,826,392	58.6%	16.8%	0.0%	24.6%	0.004	0.108%	3,063,793
RMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential AC Tune-Up & Maintenance	436,144	125,140	0	156,257	717,541	60.8%	17.4%	0.0%	21.8%	0.001	0.019%	598,224
RMF138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Residential AC Tune-Up & Maintenance	239,272	68,619	0	99,093	406,983	58.8%	16.9%	0.0%	24.3%	0.000	0.012%	336,328
RMO138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Residential AC Tune-Up & Maintenance	49,550	14,217	0	18,569	82,336	60.2%	17.3%	0.0%	22.6%	0.000	0.002%	66,981
RMF140	Proper Refrigerant Charging and Air Flow	Residential AC Tune-Up & Maintenance	220,991	63,294	0	164,965	449,249	49.2%	14.1%	0.0%	36.7%	0.001	0.017%	606,340
RMO140	Proper Refrigerant Charging and Air Flow	Residential AC Tune-Up & Maintenance	41,802	11,973	0	28,972	82,746	50.5%	14.5%	0.0%	35.0%	0.000	0.003%	118,562
RMF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential AC Tune-Up & Maintenance	2,016,539	577,558	0	1,530,416	4,124,512	48.9%	14.0%	0.0%	37.1%	0.006	0.160%	5,489,350
RMO114	Proper Refrigerant Charging and Air Flow - SS AC	Residential AC Tune-Up & Maintenance	367,946	105,384	0	246,832	720,161	51.1%	14.6%	0.0%	34.3%	0.001	0.028%	1,057,763
RMF301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	2,307,297	718,096	0	3,825,014	6,850,406	33.7%	10.5%	0.0%	55.8%	0.013	0.340%	3,401,163
RMO301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	400,074	124,514	0	663,238	1,187,826	33.7%	10.5%	0.0%	55.8%	0.002	0.059%	589,745
RSF301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	2,682,072	832,834	0	4,485,418	8,000,324	33.5%	10.4%	0.0%	56.1%	0.019	0.505%	4,177,673
CD301	Centrifugal Chiller, 0.53 kW/ton, 500 tons	Business Heating, Ventilating, & Air-Conditioning	1,009,915	43,822	0	5,777,560	10,631,297	9.5%	0.4%	0.0%	90.1%	0.022	0.605%	41,619,777
CL301	Centrifugal Chiller, 0.53 kW/ton, 500 tons	Business Heating, Ventilating, & Air-Conditioning	770,442	33,431	0	7,242,875	8,046,749	9.6%	0.4%	0.0%	90.0%	0.017	0.457%	31,925,857
CD903	VFD for Centrifugal Chiller	Business Heating, Ventilating, & Air-Conditioning	400,601	17,373	0	2,603,698	3,021,672	13.3%	0.6%	0.0%	86.2%	0.003	0.075%	51,550,092
CL903	VFD for Centrifugal Chiller	Business Heating, Ventilating, & Air-Conditioning	307,402	13,331	0	1,997,954	2,318,688	13.3%	0.6%	0.0%	86.2%	0.002	0.058%	39,557,094
CD405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	749,605	30,580	0	23,665,858	24,446,043	3.1%	0.1%	0.0%	96.8%	0.046	1.238%	8,934,076
CL405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	561,965	22,925	0	17,676,667	18,261,557	3.1%	0.1%	0.0%	96.8%	0.034	0.925%	6,873,793
CS405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	229,321	9,355	0	7,274,689	7,513,365	3.1%	0.1%	0.0%	96.8%	0.014	0.381%	2,645,896
CD902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	11,817	480	0	247,528	259,825	4.5%	0.2%	0.0%	95.3%	0.001	0.027%	552,747
CL902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	9,067	369	0	189,941	199,377	4.5%	0.2%	0.0%	95.3%	0.001	0.021%	424,152
CS902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	423	16	0	6,901	7,340	5.8%	0.2%	0.0%	94.0%	0.000	0.009%	27,230
CD321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	258,316	32,912	0	5,369,832	5,661,060	4.6%	0.6%	0.0%	94.9%	0.012	0.324%	10,848,445
CD341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	61,263	8,141	0	1,328,684	1,401,088	4.6%	0.6%	0.0%	94.8%	0.004	0.112%	3,140,106
CL321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	197,769	25,198	0	4,198,203	4,421,170	4.5%	0.6%	0.0%	95.0%	0.009	0.253%	8,031,496
CL341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	49,306	6,246	0	1,045,220	1,100,771	4.5%	0.6%	0.0%	95.0%	0.003	0.088%	2,321,149
CS321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	42,540	5,360	0	858,086	905,985	4.7%	0.6%	0.0%	94.7%	0.003	0.094%	2,229,304
CS341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	15,424	1,944	0	311,123	328,490	4.7%	0.6%	0.0%	94.7%	0.001	0.034%	808,295
CD322	Hybrid Desiccant-DX System (Trane CDQ)	Business Heating, Ventilating, & Air-Conditioning	57,553	7,359	0	1,149,575	1,214,488	4.7%	0.6%	0.0%	94.7%	0.003	0.092%	4,130,905
CL322	Hybrid Desiccant-DX System (Trane CDQ)	Business Heating, Ventilating, & Air-Conditioning	44,048	5,632	0	876,543	926,224	4.8%	0.6%	0.0%	94.6%	0.003	0.070%	3,172,019
CD361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	198,563	25,151	0	3,861,375	4,085,089	4.9%	0.6%	0.0%	94.5%	0.012	0.327%	9,386,404
CL361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	151,917	19,243	0	3,022,445	3,193,605	4.8%	0.6%	0.0%	94.6%	0.009	0.255%	6,946,652
CS361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	57,180	7,233	0	1,066,274	1,130,687	5.1%	0.6%	0.0%	94.3%	0.004	0.097%	2,895,751
CD404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	138,367	16,983	0	1,035,245	1,190,595	11.6%	1.4%	0.0%	87.0%	0.008	0.220%	5,448,487
CL404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	105,886	12,996	0	788,483	907,366	11.7%	1.4%	0.0%	86.9%	0.006	0.167%	4,182,844
CS404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	18,964	2,244	0	56,346	77,554	24.5%	2.9%	0.0%	72.7%	0.000	0.000%	984,433
CD406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	522,592	21,363	0	26,576,545	27,120,500	1.9%	0.1%	0.0%	98.0%	0.051	1.375%	9,367,105
CL406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	56,837	2,124	0	2,910,922	2,969,883	1.9%	0.1%	0.0%	98.0%	0.000	0.000%	1,451,679
CS406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	23,492	878	0	1,232,843	1,257,213	1.9%	0.1%	0.0%	98.1%	0.000	0.000%	486,718
CD317	Thermal Energy Storage	Business Heating, Ventilating, & Air-Conditioning	2,162,605	66,212	0	10,676,814	12,905,632	16.8%	0.5%	0.0%	82.7%	0.021	0.567%	5,615,019
CL317	Thermal Energy Storage	Business Heating, Ventilating, & Air-Conditioning	1,256,503	38,470	0	6,055,570	7,350,544	17.1%	0.5%	0.0%	82.4%	0.012	0.323%	3,315,260
CD141	CFL Hardwired, Modular 18W	Business Lighting	86,513	6,587	0	843,485	936,585	9.2%	0.7%	0.0%	90.1%	0.002	0.050%	3,962,404
CL141	CFL Hardwired, Modular 18W	Business Lighting	63,368	4,821	0	602,738	670,928	9.4%	0.7%	0.0%	89.8%	0.001	0.037%	2,928,874
CS141	CFL Hardwired, Modular 18W	Business Lighting	27,556	2,096	0	242,501	272,154	10.1%	0.8%	0.0%	89.1%	0.001	0.015%	1,321,029
CD152	PSMH, 250 W, electronic ballast	Business Lighting	50,938	3,868	0	415,474	470,280	10.8%	0.8%	0.0%	88.3%	0.000	0.013%	2,537,304
CL152	PSMH, 250 W, electronic ballast	Business Lighting	38,635	2,934	0	305,958	347,527	11.1%	0.8%	0.0%	88.0%	0.000	0.010%	1,947,390

Measure Information			Measure Cost (Cumulative NPV)				Measure Cost (% of Measure)				Measure Rate Impact			
Component Measure ID	Component Measure Name	Program Name with Measure	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact (\$/mo) ⁽²⁾	% of Total ECCR Cost	Lost Revenues (\$) ⁽³⁾
CS152	PSMH, 250 W, electronic ballast	Business Lighting	10,009	747	0	74,847	85,602	11.7%	0.9%	0.0%	87.4%	0.000	0.004%	712,556
CD112	Premium T8, EB, Reflector	Business Lighting	111,416	8,450	0	4,884,091	5,003,957	2.2%	0.2%	0.0%	97.6%	0.021	0.561%	7,893,905
CD122	ROB Premium T8, EB, Reflector	Business Lighting	186,805	14,421	0	1,012,235	1,213,460	15.4%	1.2%	0.0%	83.4%	0.002	0.041%	8,335,175
CL112	Premium T8, EB, Reflector	Business Lighting	84,563	6,414	0	3,685,730	3,776,707	2.2%	0.2%	0.0%	97.6%	0.016	0.423%	6,061,113
CL122	ROB Premium T8, EB, Reflector	Business Lighting	142,037	10,965	0	735,994	888,996	16.0%	1.2%	0.0%	82.8%	0.001	0.030%	6,407,028
CS112	Premium T8, EB, Reflector	Business Lighting	27,385	2,062	0	1,165,546	1,194,993	2.3%	0.2%	0.0%	97.5%	0.006	0.175%	2,119,650
CS122	ROB Premium T8, EB, Reflector	Business Lighting	46,730	3,599	0	211,332	261,661	17.9%	1.4%	0.0%	80.8%	0.000	0.011%	2,347,170
CD111	Premium T8, Electronic Ballast	Business Lighting	38,073	2,875	0	2,026,356	2,067,303	1.8%	0.1%	0.0%	98.0%	0.010	0.278%	2,801,193
CD121	ROB Premium T8, 1EB	Business Lighting	185,541	14,323	0	1,859,756	2,059,620	9.0%	0.7%	0.0%	90.3%	0.003	0.069%	8,278,806
CL111	Premium T8, Electronic Ballast	Business Lighting	28,251	2,133	0	1,482,810	1,513,194	1.9%	0.1%	0.0%	98.0%	0.008	0.204%	2,103,582
CL121	ROB Premium T8, 1EB	Business Lighting	141,076	10,891	0	1,380,576	1,532,543	9.2%	0.7%	0.0%	90.1%	0.002	0.031%	6,363,699
CS111	Premium T8, Electronic Ballast	Business Lighting	9,205	695	0	392,248	402,148	2.3%	0.2%	0.0%	97.5%	0.002	0.054%	711,029
CS121	ROB Premium T8, 1EB	Business Lighting	31,551	2,416	0	300,133	334,101	9.4%	0.7%	0.0%	89.8%	0.001	0.021%	2,138,479
CD153	High Bay T5	Business Lighting	215,824	16,641	0	1,088,503	1,320,968	16.3%	1.3%	0.0%	82.4%	0.002	0.044%	9,714,955
CL153	High Bay T5	Business Lighting	163,698	12,622	0	786,878	963,197	17.0%	1.3%	0.0%	81.7%	0.001	0.032%	7,455,770
CS153	High Bay T5	Business Lighting	37,224	2,845	0	159,907	199,975	18.6%	1.4%	0.0%	80.0%	0.000	0.012%	2,533,317
CD161	LED Exit Sign	Business Lighting	57,729	4,476	0	161,746	223,951	25.8%	2.0%	0.0%	72.2%	0.000	0.007%	4,544,912
CL161	LED Exit Sign	Business Lighting	44,071	3,417	0	113,081	160,569	27.4%	2.1%	0.0%	70.4%	0.000	0.005%	3,490,366
CD511	Anti-sweat (humidistat) controls	Business Refrigeration	129,263	8,045	0	137,920	275,228	47.0%	2.9%	0.0%	50.1%	0.000	0.012%	2,285,729
CL511	Anti-sweat (humidistat) controls	Business Refrigeration	99,190	6,174	0	105,833	211,197	47.0%	2.9%	0.0%	50.1%	0.000	0.009%	1,753,960
CD506	Compressor VSD retrofit	Business Refrigeration	78,345	4,904	0	329,798	413,047	19.0%	1.2%	0.0%	79.8%	0.001	0.018%	2,268,067
CL506	Compressor VSD retrofit	Business Refrigeration	60,118	3,763	0	253,071	316,952	19.0%	1.2%	0.0%	79.8%	0.001	0.014%	1,740,407
CD509	Demand Hot Gas Defrost	Business Refrigeration	19,742	1,208	0	132,959	153,909	12.8%	0.8%	0.0%	86.4%	0.001	0.017%	218,011
CL509	Demand Hot Gas Defrost	Business Refrigeration	15,149	927	0	102,027	118,103	12.8%	0.8%	0.0%	86.4%	0.000	0.013%	167,292
CS509	Demand Hot Gas Defrost	Business Refrigeration	4,566	279	0	29,905	34,750	13.1%	0.8%	0.0%	86.1%	0.000	0.000%	51,119
CD513	High R-Value Glass Doors	Business Refrigeration	51,973	3,199	0	191,966	247,138	21.0%	1.3%	0.0%	77.7%	0.001	0.021%	1,200,620
CL513	High R-Value Glass Doors	Business Refrigeration	39,881	2,455	0	147,305	189,642	21.0%	1.3%	0.0%	77.7%	0.001	0.016%	921,299
CS513	High R-Value Glass Doors	Business Refrigeration	1,816	102	0	2,703	4,621	39.3%	2.2%	0.0%	58.5%	0.000	0.000%	60,890
CD504	Evaporator fan controller for MT walk-ins	Business Refrigeration	15,476	966	0	59,176	75,618	20.5%	1.3%	0.0%	78.3%	0.000	0.006%	214,366
CL504	Evaporator fan controller for MT walk-ins	Business Refrigeration	11,876	741	0	45,409	58,026	20.5%	1.3%	0.0%	78.3%	0.000	0.004%	164,495
CD404	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	62,815	3,763	0	443,676	510,255	12.3%	0.7%	0.0%	87.0%	0.003	0.094%	2,335,066
CL404	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	48,070	2,880	0	337,921	388,871	12.4%	0.7%	0.0%	86.9%	0.003	0.072%	1,792,647
CS404	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	8,592	497	0	24,148	33,237	25.8%	1.5%	0.0%	72.7%	0.000	0.000%	421,900
CD515	Oversized Air Cooled Condenser	Business Refrigeration	262,558	16,436	0	421,146	700,141	37.5%	2.3%	0.0%	60.2%	0.001	0.029%	4,096,931
CL515	Oversized Air Cooled Condenser	Business Refrigeration	201,475	12,612	0	323,168	537,255	37.5%	2.3%	0.0%	60.2%	0.001	0.023%	3,143,790
CD313	Ceiling Insulation	Business Building Envelope	5,852	614	0	74,106	80,572	7.3%	0.8%	0.0%	92.0%	0.000	0.008%	155,065
CD334	Ceiling Insulation	Business Building Envelope	17,863	1,878	0	146,984	166,725	10.7%	1.1%	0.0%	88.2%	0.001	0.015%	456,971
CD349	Ceiling Insulation	Business Building Envelope	2,077	219	0	10,306	12,602	16.5%	1.7%	0.0%	81.8%	0.000	0.001%	46,694
CL313	Ceiling Insulation	Business Building Envelope	5,201	547	0	67,133	72,880	7.1%	0.8%	0.0%	92.1%	0.000	0.007%	128,140
CL334	Ceiling Insulation	Business Building Envelope	17,379	1,835	0	145,832	165,046	10.5%	1.1%	0.0%	88.4%	0.000	0.012%	378,662
CL349	Ceiling Insulation	Business Building Envelope	1,616	171	0	8,520	10,307	15.7%	1.7%	0.0%	82.7%	0.000	0.001%	35,217
CS313	Ceiling Insulation	Business Building Envelope	60,641	6,381	0	783,841	850,862	7.1%	0.7%	0.0%	92.1%	0.003	0.075%	1,480,538
CS334	Ceiling Insulation	Business Building Envelope	208,904	22,090	0	1,753,275	1,984,269	10.5%	1.1%	0.0%	88.4%	0.005	0.140%	4,432,970
CS349	Ceiling Insulation	Business Building Envelope	19,429	2,054	0	102,623	124,106	15.7%	1.7%	0.0%	82.7%	0.000	0.009%	412,284
CD315	Cool Roof - Chiller	Business Building Envelope	265,485	28,178	0	6,649,934	6,943,598	3.8%	0.4%	0.0%	95.8%	0.014	0.386%	6,231,290
CD336	Cool Roof - DX	Business Building Envelope	1,616,151	171,668	0	40,555,507	42,343,325	3.8%	0.4%	0.0%	95.8%	0.088	2.370%	38,346,933
CD351	Cool Roof - DX	Business Building Envelope	219,710	23,271	0	5,495,235	5,738,215	3.8%	0.4%	0.0%	95.8%	0.014	0.369%	5,124,954
CL315	Cool Roof - Chiller	Business Building Envelope	254,770	27,109	0	6,328,742	6,610,620	3.9%	0.4%	0.0%	95.7%	0.011	0.304%	5,456,292
CL336	Cool Roof - DX	Business Building Envelope	1,261,373	133,980	0	31,785,782	33,181,134	3.8%	0.4%	0.0%	95.8%	0.069	1.861%	30,085,057
CL351	Cool Roof - DX	Business Building Envelope	169,945	17,998	0	4,269,087	4,457,029	3.8%	0.4%	0.0%	95.8%	0.011	0.288%	3,989,978
CS315	Cool Roof - Chiller	Business Building Envelope	80,158	8,531	0	2,145,140	2,233,829	3.6%	0.4%	0.0%	96.0%	0.004	0.101%	1,512,202
CS336	Cool Roof - DX	Business Building Envelope	457,185	48,571	0	12,413,393	12,919,149	3.5%	0.4%	0.0%	96.1%	0.026	0.714%	9,618,305
CS351	Cool Roof - DX	Business Building Envelope	72,148	7,639	0	1,954,579	2,034,366	3.5%	0.4%	0.0%	96.1%	0.005	0.133%	1,505,085
CD314	Roof Insulation	Business Building Envelope	6,660	702	0	114,613	121,975	5.5%	0.6%	0.0%	94.0%	0.000	0.010%	189,183
CD335	Roof Insulation	Business Building Envelope	24,501	2,594	0	242,048	269,143	9.1%	1.0%	0.0%	89.9%	0.001	0.017%	657,423
CD350	Roof Insulation	Business Building Envelope	3,982	425	0	23,839	28,246	14.1%	1.5%	0.0%	84.4%	0.000	0.001%	77,947

Measure Information			Measure Cost (Cumulative NPV)					Measure Cost (% of Measure)				Measure Rate Impact		
Component Measure ID	Component Measure Name	Program Name with Measure	Administrative ⁽¹⁾	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Total Cost	Administrative	Education, Surveys, Marketing	Equipment, Installation, O&M	Incentives / Rebates	Residential Rate Impact (\$/mo) ⁽²⁾	% of Total ECCR Cost	Lost Revenues (\$) ⁽³⁾
CL314	Roof Insulation	Business Building Envelope	5,391	568	0	98,151	104,110	5.2%	0.5%	0.0%	94.3%	0.000	0.008%	135,077
CL335	Roof Insulation	Business Building Envelope	19,834	2,100	0	215,527	237,461	8.4%	0.9%	0.0%	90.8%	0.001	0.015%	469,438
CL350	Roof Insulation	Business Building Envelope	3,224	344	0	22,356	25,924	12.4%	1.3%	0.0%	86.2%	0.000	0.001%	55,670
CS314	Roof Insulation	Business Building Envelope	394	42	0	6,438	6,874	5.7%	0.6%	0.0%	93.7%	0.000	0.001%	12,355
CS335	Roof Insulation	Business Building Envelope	1,449	153	0	13,074	14,677	9.9%	1.0%	0.0%	89.1%	0.000	0.001%	42,923
CS350	Roof Insulation	Business Building Envelope	236	25	0	1,216	1,477	15.9%	1.7%	0.0%	82.4%	0.000	0.000%	5,089
CD311	Window Film (Standard)	Business Building Envelope	3,636	371	0	121,892	125,899	2.9%	0.3%	0.0%	96.8%	0.000	0.000%	183,260
CD332	Window Film (Standard)	Business Building Envelope	32,047	3,361	0	542,664	578,072	5.5%	0.6%	0.0%	93.9%	0.002	0.058%	1,636,597
CD347	Window Film (Standard)	Business Building Envelope	2,192	230	0	26,282	28,703	7.6%	0.8%	0.0%	91.6%	0.000	0.003%	111,918
CL311	Window Film (Standard)	Business Building Envelope	2,856	291	0	97,601	100,749	2.8%	0.3%	0.0%	96.9%	0.000	0.000%	137,585
CL332	Window Film (Standard)	Business Building Envelope	25,159	2,638	0	443,094	470,892	5.3%	0.6%	0.0%	94.1%	0.002	0.048%	1,228,137
CL347	Window Film (Standard)	Business Building Envelope	1,721	180	0	21,800	23,701	7.3%	0.8%	0.0%	92.0%	0.000	0.002%	83,986
CS311	Window Film (Standard)	Business Building Envelope	2,216	212	0	68,167	70,595	3.1%	0.3%	0.0%	96.6%	0.000	0.000%	140,968
CS332	Window Film (Standard)	Business Building Envelope	41,846	4,369	0	617,038	663,252	6.3%	0.7%	0.0%	93.0%	0.003	0.080%	2,549,697
CS347	Window Film (Standard)	Business Building Envelope	2,861	299	0	27,978	31,138	9.2%	1.0%	0.0%	89.9%	0.000	0.004%	174,350
CD603	Heat Pump Water Heater (air source)	Business Water Heating	417,702	9,102	0	2,690,671	3,117,476	13.4%	0.3%	0.0%	86.3%	0.006	0.159%	6,695,579
CL603	Heat Pump Water Heater (air source)	Business Water Heating	185,528	4,007	0	1,238,456	1,427,991	13.0%	0.3%	0.0%	86.7%	0.005	0.122%	3,825,202
CS603	Heat Pump Water Heater (air source)	Business Water Heating	8,688	172	0	41,067	49,927	17.4%	0.3%	0.0%	82.3%	0.000	0.000%	256,794
CD608	Heat Recovery Unit	Business Water Heating	77,272	1,656	0	974,930	1,053,857	7.3%	0.2%	0.0%	92.5%	0.000	0.000%	506,481
CL608	Heat Recovery Unit	Business Water Heating	59,295	1,270	0	748,115	808,680	7.3%	0.2%	0.0%	92.5%	0.000	0.000%	388,650
CS608	Heat Recovery Unit	Business Water Heating	24,748	530	0	313,233	338,511	7.3%	0.2%	0.0%	92.5%	0.000	0.000%	159,986
CD306	VFD for Chiller Pumps and Towers	Business Motors	15,987	2,171	0	17,889	36,046	44.3%	6.0%	0.0%	49.6%	0.000	0.002%	660,424
CL306	VFD for Chiller Pumps and Towers	Business Motors	12,267	1,666	0	13,727	27,660	44.3%	6.0%	0.0%	49.6%	0.000	0.001%	506,778

(1) Program-specific administrative costs for these measures total \$89.2 million NPV. To that, FPL has added \$34.7 million NPV of "common expenses".

These common expenses, though not program specific, were added pro-rata to measure costs in order to comply with Staff's data request.

(2) These measures represent approximately 51% of the total DSM Plan costs from 2011. Assumes 1,200 kWh/month consumption.

(3) Represents the 2010-2019 net present value of Lost Revenues associated with incremental participation.

Total ECCR Cost \$/mo (1,200 kWh)
3.70

Q.

For the following questions (6-9), only consider those programs which feature multiple measures. Please provide the name of each measure, and indicate with which program it is associated. Include all measures on a single table, adding columns as necessary.

Please provide, for each measure identified by the criteria above, the results of the E-TRC, E-RIM, and Participants Tests. Include the cumulative net present values of all benefits and costs. As part of this response, please also provide the payback period for each measure. Please complete the table below and provide an electronic copy in Excel (.xls file format) with the hard copy response.

Measure Information - Cost Effectiveness		
Component Measure Name	-	
Program Name with Measure	-	
E-TRC Test Results		
Total Benefits	(\$)	
Total Costs	(\$)	
Ratio	-	
E-RIM Test Results		
Total Benefits	(\$)	
Total Costs	(\$)	
Ratio	-	
Participants Test Results		
Total Benefits	(\$)	
Total Costs	(\$)	
Ratio	-	
Payback Period		
E-TRC Test	(Yrs)	
E-RIM Test	(Yrs)	
Participants Test	(Yrs)	

A.

Please see Table - Staff's 1st Data Request No. 8 - Revised for the requested information.

FILE NUMBER-DATE
5437 JUL-10
FPSC-COMMISSION CLERK

Table Staff-8_ Revised

Docket: 100155-EG
Staff 1st Set of Data Request

Measure Information - Cost Effectiveness												
Component Measure ID	Component Measure Name	Program Name with Measure	E-TRC Test Results			E-RIM Test Results			Participants Test Results			Payback Period (Yrs)
			Total Benefits (\$)	Total Cost (\$)	Ratio	Total Benefits (\$)	Total Cost (\$)	Ratio	Total Benefits (\$)	Total Cost (\$)	Ratio	
CD111	Premium T8, Electronic Ballast	Business Lighting	54,416	31,357	1.74	54,416	54,145	1.01	60,272	31,126	1.94	4.7
CD112	Premium T8, EB, Reflector	Business Lighting	54,416	19,980	2.72	54,416	51,825	1.05	58,002	19,749	2.94	2.0
CD121	ROB Premium T8, 1EB	Business Lighting	54,416	9,777	5.57	54,416	43,567	1.25	49,693	9,546	5.21	2.0
CD122	ROB Premium T8, EB, Reflector	Business Lighting	54,416	8,276	6.58	54,416	42,345	1.29	48,471	8,045	6.03	2.0
CD141	CFL, Hardwired, Modular 18W	Business Lighting	54,416	21,030	2.59	54,416	46,231	1.18	52,084	20,525	2.54	2.0
CD152	PSMH, 250 W, electronic ballast	Business Lighting	54,416	11,607	4.69	54,416	43,581	1.25	49,645	11,314	4.39	2.0
CD153	High Bay T5	Business Lighting	54,416	10,332	5.27	54,416	42,589	1.28	48,653	10,079	4.85	2.0
CD161	LED Exit Sign	Business Lighting	96,085	13,850	6.94	96,085	80,167	1.20	94,144	13,597	6.92	2.0
CD301	Centrifugal Chiller, 0.53 kW/ton, 500 tons	Business HVAC	62,090	12,558	4.94	62,090	52,392	1.19	60,189	12,178	4.94	2.0
CD306	VFD for Chiller Pumps and Towers	Business Motors	69,444	10,545	6.59	69,444	56,707	1.22	65,914	10,111	6.52	2.0
CD311	Window Film (Standard)	Business Building Envelope	60,748	36,896	1.65	60,748	69,554	0.87	77,527	36,324	2.13	2.0
CD313	Ceiling Insulation	Business Building Envelope	38,567	10,528	3.66	38,567	29,814	1.29	33,011	10,143	3.25	2.0
CD314	Roof Insulation	Business Building Envelope	42,367	13,199	3.21	42,367	34,471	1.23	38,241	12,813	2.98	2.0
CD315	Cool Roof - Chiller	Business Building Envelope	38,235	30,772	1.24	38,235	38,045	1.01	41,354	30,330	1.36	6.5
CD321	DX Packaged System, EER=10.9, 10 tons	Business HVAC	57,710	19,309	2.99	57,710	53,260	1.08	60,247	18,886	3.19	2.0
CD322	Hybrid Desiccant-DX System (Trane CDQ)	Business HVAC	85,023	22,741	3.74	85,023	78,909	1.08	91,257	22,319	4.09	2.0
CD332	Window Film (Standard)	Business Building Envelope	60,748	24,034	2.53	60,748	59,703	1.02	67,675	23,462	2.88	2.0
CD334	Ceiling Insulation	Business Building Envelope	38,567	8,338	4.63	38,567	28,030	1.38	31,228	7,953	3.93	2.0
CD335	Roof Insulation	Business Building Envelope	42,367	9,576	4.42	42,367	31,522	1.34	35,292	9,191	3.84	2.0
CD336	Cool Roof - DX	Business Building Envelope	38,235	26,995	1.42	38,235	38,045	1.01	41,354	26,554	1.56	5.0
CD341	Packaged HP System, EER=10.9, 10 tons	Business HVAC	57,851	19,309	3.01	57,851	54,123	1.07	61,110	18,886	3.24	2.0
CD347	Window Film (Standard)	Business Building Envelope	60,748	20,373	2.98	60,748	56,899	1.07	64,872	19,801	3.28	2.0
CD349	Ceiling Insulation	Business Building Envelope	38,567	6,745	5.72	38,567	26,733	1.44	29,931	6,360	4.71	2.0
CD350	Roof Insulation	Business Building Envelope	42,367	7,736	5.48	42,367	30,023	1.41	33,793	7,351	4.60	2.0
CD351	Cool Roof - DX	Business Building Envelope	38,235	21,309	1.79	38,235	38,045	1.01	41,354	20,868	1.98	2.6
CD361	HE PTAC, EER=9.6, 1 ton	Business HVAC	57,710	18,383	3.14	57,710	52,525	1.10	59,512	17,961	3.31	2.0
CD404	Electronically Commutated Motors (ECM) on an Air Handler Unit	Business HVAC & Business Refrigeration	88,374	23,550	3.75	88,374	80,900	1.09	93,469	22,665	4.12	2.0
CD405	Demand Control Ventilation (DCV)	Business HVAC	52,904	41,089	1.29	52,904	55,913	0.95	59,097	40,306	1.47	2.0
CD406	Energy Recovery Ventilation (ERV)	Business HVAC	40,251	33,180	1.21	40,251	46,785	0.86	49,300	32,782	1.50	2.0
CD504	Evaporator fan controller for MT walk-ins	Business Refrigeration	163,848	52,218	1.93	160,848	100,910	1.00	113,022	48,841	2.31	2.0
CD506	Compressor VSD retrofit	Business Refrigeration	185,313	47,181	3.93	185,313	170,947	1.08	199,942	45,203	4.42	2.0
CD509	Demand Hot Gas Defrost	Business Refrigeration	50,112	28,143	1.78	50,112	51,763	0.97	55,397	26,165	2.12	2.0
CD511	Anti-sweat (humidity) controls	Business Refrigeration	109,159	21,687	5.03	109,159	94,601	1.15	109,651	19,924	5.50	2.0
CD513	High R-Value Glass Doors	Business Refrigeration	100,847	29,915	3.37	100,847	93,853	1.07	107,363	27,937	3.84	2.0
CD515	Oversized Air Cooled Condenser	Business Refrigeration	100,847	18,065	5.58	100,847	88,432	1.14	102,465	16,609	6.17	2.0
CD603	Heat Pump Water Heater (air source)	Business Water Heating	93,020	28,526	3.26	93,020	89,991	1.03	102,510	27,012	3.79	2.0
CD608	Heat Recovery Unit	Business Water Heating	45,258	33,990	1.33	45,258	55,176	0.82	58,502	32,545	1.80	2.0
CD902	Exhaust and Make-up Air Control System	Business HVAC	97,046	33,955	2.86	97,046	94,453	1.03	107,848	33,244	3.24	2.0
CD903	VFD for Centrifugal Chiller	Business HVAC	218,460	30,374	7.19	218,460	187,993	1.16	223,480	29,919	7.47	2.0
CL111	Premium T8, Electronic Ballast	Business Lighting	54,596	31,357	1.74	54,596	54,324	1.00	60,451	31,126	1.94	4.7
CL112	Premium T8, EB, Reflector	Business Lighting	54,596	19,980	2.73	54,596	52,175	1.05	58,301	19,749	2.95	2.0
CL121	ROB Premium T8, 1EB	Business Lighting	54,596	9,777	5.58	54,596	43,866	1.24	49,992	9,546	5.24	2.0
CL122	ROB Premium T8, EB, Reflector	Business Lighting	54,596	8,276	6.60	54,596	42,644	1.28	48,770	8,045	6.06	2.0
CL141	CFL, Hardwired, Modular 18W	Business Lighting	54,596	21,030	2.60	54,596	46,468	1.17	52,321	20,525	2.55	2.0
CL152	PSMH, 250 W, electronic ballast	Business Lighting	54,596	11,607	4.70	54,596	43,867	1.24	49,931	11,314	4.41	2.0
CL153	High Bay T5	Business Lighting	54,596	10,332	5.28	54,596	42,875	1.27	48,939	10,039	4.87	2.0
CL161	LED Exit Sign	Business Lighting	96,263	13,850	6.95	96,263	80,461	1.20	94,438	13,597	6.95	2.0
CL301	Centrifugal Chiller, 0.53 kW/ton, 500 tons	Business HVAC	62,229	12,558	4.96	62,229	52,563	1.18	60,359	12,178	4.96	2.0
CL306	VFD for Chiller Pumps and Towers	Business Motors	69,444	10,545	6.59	69,444	56,707	1.22	65,914	10,111	6.52	2.0
CL311	Window Film (Standard)	Business Building Envelope	60,521	36,896	1.64	60,521	68,245	0.89	76,156	36,324	2.10	2.0
CL313	Ceiling Insulation	Business Building Envelope	42,387	10,528	4.03	42,387	29,418	1.44	32,729	10,143	3.23	2.0
CL314	Roof Insulation	Business Building Envelope	41,811	13,199	3.17	41,811	31,842	1.31	35,211	12,813	2.75	2.0
CL315	Cool Roof - Chiller	Business Building Envelope	38,425	30,772	1.25	38,425	38,234	1.01	41,572	30,330	1.37	6.5
CL321	DX Packaged System, EER=10.9, 10 tons	Business HVAC	55,943	19,309	2.90	55,943	51,817	1.08	58,435	18,886	3.09	2.0
CL322	Hybrid Desiccant-DX System (Trane CDQ)	Business HVAC	85,153	22,741	3.74	85,153	79,043	1.08	91,391	22,319	4.09	2.0
CL332	Window Film (Standard)	Business Building Envelope	60,521	24,034	2.52	60,521	58,399	1.04	66,310	23,462	2.83	2.0
CL334	Ceiling Insulation	Business Building Envelope	42,387	8,338	5.08	42,387	27,634	1.53	30,945	7,953	3.89	2.0
CL335	Roof Insulation	Business Building Envelope	41,811	9,576	4.37	41,811	28,893	1.45	32,261	9,191	3.51	2.0
CL336	Cool Roof - DX	Business Building Envelope	38,425	26,995	1.42	38,425	38,234	1.01	41,572	26,554	1.57	4.9
CL341	Packaged HP System, EER=10.9, 10 tons	Business HVAC	55,912	19,309	2.90	55,912	52,546	1.06	59,165	18,886	3.13	2.0
CL347	Window Film (Standard)	Business Building Envelope	60,521	20,373	2.97	60,521	55,596	1.09	63,507	19,801	3.21	2.0
CL349	Ceiling Insulation	Business Building Envelope	42,387	6,745	6.28	42,387	26,338	1.61	29,649	6,360	4.66	2.0
CL350	Roof Insulation	Business Building Envelope	41,811	7,736	5.40	41,811	27,394	1.53	30,763	7,351	4.19	2.0
CL351	Cool Roof - DX	Business Building Envelope	38,425	21,309	1.80	38,425	38,234	1.01	41,572	20,868	1.99	2.5

Table Staff-8_Revised

Docket: 100155-EG
Staff 1st Set of Data Request

Measure Information - Cost Effectiveness												
Component Measure ID	Component Measure Name	Program Name with Measure	E-TRC Test Results			E-RIM Test Results			Participants Test Results			Payback Period (Yrs)
			Total Benefits (\$)	Total Cost (\$)	Ratio	Total Benefits (\$)	Total Cost (\$)	Ratio	Total Benefits (\$)	Total Cost (\$)	Ratio	
CL361	HE PTAC, EER=9.6, 1 ton	Business HVAC	55,943	18,383	3.04	55,943	51,082	1.10	57,701	17,961	3.21	2.0
CL404	Electronically Commutated Motors (ECM) on an Air Handler Unit	Business HVAC & Business Refrigeration	88,600	23,550	3.76	88,600	81,074	1.09	93,603	22,665	4.13	2.0
CL405	Demand Control Ventilation (DCV)	Business HVAC	52,389	41,089	1.28	52,389	56,346	0.93	59,530	40,306	1.48	2.0
CL406	Energy Recovery Ventilation (ERV)	Business HVAC	40,319	33,180	1.22	40,319	46,749	0.86	49,264	32,782	1.50	2.0
CL504	Evaporator fan controller for MT walk-ins	Business Refrigeration	100,848	52,218	1.93	100,848	100,910	1.00	113,022	48,841	2.31	2.0
CL506	Compressor VSD retrofit	Business Refrigeration	185,313	47,181	3.93	185,313	170,947	1.08	199,942	45,203	4.42	2.0
CL509	Demand Hot Gas Defrost	Business Refrigeration	50,112	28,143	1.78	50,112	51,763	0.97	55,397	26,165	2.12	2.0
CL511	Anti-sweat (humidistat) controls	Business Refrigeration	109,159	21,687	5.03	109,159	94,601	1.15	109,651	19,924	5.50	2.0
CL513	High R-Value Glass Doors	Business Refrigeration	100,847	29,915	3.37	100,847	93,853	1.07	107,363	27,937	3.84	2.0
CL514	Multiplex Compressor System	Business Refrigeration	100,847	51,760	1.95	100,847	113,823	0.89	127,709	50,158	2.55	2.0
CL515	Oversized Air Cooled Condenser	Business Refrigeration	100,847	18,065	5.58	100,847	88,432	1.14	102,465	16,609	6.17	2.0
CL603	Heat Pump Water Heater (air source)	Business Water Heating	93,020	28,526	3.26	93,020	89,991	1.03	102,510	27,012	3.79	2.0
CL608	Heat Recovery Unit	Business Water Heating	45,258	33,990	1.33	45,258	55,176	0.82	58,802	32,545	1.80	2.0
CL902	Exhaust and Make-up Air Control System	Business HVAC	97,046	33,955	2.86	97,046	94,453	1.03	107,848	33,244	3.24	2.0
CL903	VFD for Centrifugal Chiller	Business HVAC	218,460	30,374	7.19	218,460	187,993	1.16	223,480	29,919	7.47	2.0
CS111	Premium T8, Electronic Ballast	Business Lighting	53,704	31,357	1.71	53,704	53,437	1.01	61,932	31,126	1.99	5.4
CS112	Premium T8, FB, Reflector	Business Lighting	53,704	19,980	2.69	53,704	53,437	1.01	61,932	19,749	3.14	2.0
CS121	ROB Premium T8, IEB	Business Lighting	53,704	9,277	5.49	53,704	45,249	1.19	53,744	9,546	5.63	2.0
CS122	ROB Premium T8, FB, Reflector	Business Lighting	53,704	8,276	6.49	53,704	44,026	1.22	52,522	8,045	6.53	2.0
CS141	CFL Hardwired, Modular 18W	Business Lighting	53,704	21,030	2.55	53,704	47,668	1.13	55,890	20,525	2.72	2.0
CS152	PSMH, 250 W, electronic ballast	Business Lighting	53,704	11,607	4.63	53,704	45,210	1.19	53,644	11,314	4.74	2.0
CS153	High Bay T5	Business Lighting	53,704	10,332	5.20	53,704	44,218	1.21	52,652	10,039	5.24	2.0
CS311	Window Film (Standard)	Business Building Envelope	59,907	36,896	1.62	59,907	73,633	0.81	84,304	36,324	2.32	2.0
CS313	Ceiling Insulation	Business Building Envelope	39,437	10,528	3.75	39,437	29,331	1.34	33,793	10,143	3.33	2.0
CS314	Roof Insulation	Business Building Envelope	44,975	13,199	3.41	44,975	37,062	1.21	42,826	12,813	3.34	2.0
CS315	Cool Roof - Chiller	Business Building Envelope	36,851	30,772	1.20	36,851	36,667	1.01	41,057	30,330	1.35	6.8
CS321	DX Packaged System, EER=10.9, 10 tons	Business HVAC	54,169	19,309	2.81	54,169	53,899	1.00	62,678	18,886	3.32	2.0
CS332	Window Film (Standard)	Business Building Envelope	59,907	24,034	2.49	59,907	63,789	0.94	74,460	23,462	3.17	2.0
CS334	Ceiling Insulation	Business Building Envelope	39,437	8,338	4.73	39,437	27,547	1.43	32,009	7,953	4.02	2.0
CS335	Roof Insulation	Business Building Envelope	44,975	9,576	4.70	44,975	34,113	1.32	39,876	9,191	4.34	2.0
CS336	Cool Roof - DX	Business Building Envelope	36,851	26,995	1.37	36,851	36,667	1.01	41,057	26,554	1.55	5.0
CS341	Packaged HP System, EER=10.9, 10 tons	Business HVAC	54,169	19,309	2.81	54,169	53,899	1.00	62,678	18,886	3.32	2.0
CS347	Window Film (Standard)	Business Building Envelope	59,907	20,373	2.94	59,907	60,985	0.98	71,656	19,801	3.62	2.0
CS349	Ceiling Insulation	Business Building Envelope	39,437	6,745	5.85	39,437	26,251	1.50	30,712	6,360	4.83	2.0
CS350	Roof Insulation	Business Building Envelope	44,975	7,736	5.81	44,975	32,614	1.38	38,378	7,351	5.22	2.0
CS351	Cool Roof - DX	Business Building Envelope	36,851	21,309	1.73	36,851	36,667	1.01	41,057	20,868	1.97	2.3
CS361	HE PTAC, EER=9.6, 1 ton	Business HVAC	54,169	18,383	2.95	54,169	53,295	1.02	62,073	17,961	3.46	2.0
CS404	Electronically Commutated Motors (ECM) on an Air Handler Unit	Business HVAC & Business Refrigeration	88,686	23,550	3.77	88,686	93,780	0.95	111,362	22,665	4.91	2.0
CS405	Demand Control Ventilation (DCV)	Business HVAC	52,179	41,089	1.27	52,179	55,647	0.94	60,309	40,306	1.50	2.0
CS406	Energy Recovery Ventilation (ERV)	Business HVAC	39,987	33,180	1.21	39,987	44,161	0.91	47,762	32,782	1.46	2.0
CS509	Demand Hot Gas Defrost	Business Refrigeration	50,112	28,143	1.78	50,112	53,015	0.95	58,740	26,165	2.24	2.0
CS513	High R-Value Glass Doors	Business Refrigeration	100,847	29,915	3.37	100,847	108,931	0.93	128,213	27,937	4.59	2.0
CS603	Heat Pump Water Heater (air source)	Business Water Heating	93,020	28,526	3.26	93,020	103,792	0.90	121,540	27,012	4.50	2.0
CS608	Heat Recovery Unit	Business Water Heating	45,258	33,990	1.33	45,258	55,235	0.82	60,340	32,545	1.85	2.0
CS902	Exhaust and Make-up Air Control System	Business HVAC	97,046	33,955	2.86	97,046	108,366	0.90	127,018	33,244	3.82	2.0
RMF101	14 SEER Split-System Air Conditioner	Residential HVAC	7,502	4,371	1.72	7,502	7,462	1.01	8,661	3,896	2.22	3.7
RMF102	15 SEER Split-System Air Conditioner	Residential HVAC	11,607	11,362	1.02	11,607	11,552	1.00	13,615	10,887	1.25	9.6
RMF105	14 SEER Split-System Heat Pump	Residential HVAC	10,750	4,441	2.42	10,750	9,695	1.11	11,459	3,966	2.89	2.0
RMF106	15 SEER Split-System Heat Pump	Residential HVAC	15,459	10,240	1.51	15,459	15,384	1.00	18,012	9,765	1.84	3.7
RMF108	Geothermal Heat Pump	Residential HVAC	11,082	6,429	1.72	11,082	12,668	0.87	15,027	6,009	2.50	2.1
RMF109	AC Proper Sizing	Residential HVAC	2,221	1,084	2.05	2,221	1,443	1.54	1,580	1,002	1.58	2.0
RMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential AC Tuneup	3,806	3,125	1.22	3,806	3,810	1.00	3,411	2,006	1.70	2.0
RMF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential AC Tuneup	5,436	2,037	2.67	5,436	4,191	1.30	4,682	1,493	3.14	2.0
RMF116	Duct Repair - SS AC	Residential Duct Testing and Repair	3,857	2,596	1.49	3,857	3,838	1.00	3,897	1,964	1.98	4.4
RMF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	4,360	2,079	2.10	4,360	4,213	1.03	4,983	1,945	2.56	2.0
RMF131	14 SEER Split-System Heat Pump	Residential HVAC	10,750	4,441	2.42	10,750	9,695	1.11	11,459	3,966	2.89	2.0
RMF132	15 SEER Split-System Heat Pump	Residential HVAC	15,459	10,240	1.51	15,459	15,384	1.00	18,012	9,765	1.84	3.7
RMF134	Geothermal Heat Pump	Residential HVAC	11,082	6,429	1.72	11,082	12,668	0.87	15,027	6,009	2.50	2.1
RMF135	HVAC Proper Sizing - SS HP	Residential HVAC	2,235	1,084	2.06	2,235	1,446	1.55	1,585	1,002	1.58	2.0
RMF138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Residential AC Tuneup	3,832	3,125	1.23	3,832	3,818	1.00	3,424	2,006	1.71	2.0
RMF140	Proper Refrigerant Charging and Air Flow	Residential AC Tuneup	5,479	2,037	2.69	5,479	4,211	1.30	4,710	1,493	3.15	2.0
RMF142	Duct Repair - SS HP	Residential Duct Testing and Repair	3,857	2,596	1.49	3,857	3,838	1.00	3,897	1,964	1.98	4.4
RMF150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	3,857	2,079	1.85	3,857	3,837	1.01	4,489	1,945	2.31	2.3
RMF202	Ceiling R-0 to R-19 Insulation - Room AC	Residential Building Envelope	4,360	2,079	2.10	4,360	4,213	1.03	4,983	1,945	2.56	2.0

Measure Information - Cost Effectiveness												
Component Measure ID	Component Measure Name	Program Name with Measure	E-TRC Test Results			E-RIM Test Results			Participants Test Results			Payback Period (Yrs)
			Total Benefits (\$)	Total Cost (\$)	Ratio	Total Benefits (\$)	Total Cost (\$)	Ratio	Total Benefits (\$)	Total Cost (\$)	Ratio	
RMP301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	1,708	1,484	1.15	1,708	2,321	0.74	2,274	1,044	2.18	2.0
RMP969	Plenum Seal - SC base	Residential HVAC	2,430	834	2.91	2,430	1,996	1.28	2,329	801	2.91	2.0
RMP971	Reflective Roof Coating	Residential Building Envelope	111,796	123,954	0.90	111,796	111,240	1.00	132,939	122,982	1.08	8.5
RMP976	Plenum Seal - HP base	Residential HVAC	2,430	834	2.91	2,430	1,996	1.28	2,329	801	2.91	2.0
RMP978	Reflective Roof Coating	Residential Building Envelope	111,796	123,954	0.90	111,796	111,240	1.00	132,939	122,982	1.08	8.5
RMP993	BuildSmart <0.67 Energy Star (Old <0.70)	BuildSmart	25,319	14,743	1.72	25,319	25,193	1.00	27,986	13,001	2.15	2.5
RMP994	BuildSmart 0.68-0.77 (Old 0.71-0.80)	BuildSmart	15,815	8,359	1.89	15,815	15,093	1.05	16,079	6,617	2.43	2.0
RMO101	14 SEER Split-System Air Conditioner	Residential HVAC	7,965	4,371	1.82	7,965	7,925	1.01	9,146	3,896	2.35	2.6
RMO102	15 SEER Split-System Air Conditioner	Residential HVAC	12,453	11,362	1.10	12,453	12,389	1.01	14,691	10,887	1.35	8.6
RMO105	14 SEER Split-System Heat Pump	Residential HVAC	11,524	4,441	2.59	11,524	9,783	1.18	11,576	3,966	2.92	2.0
RMO106	15 SEER Split-System Heat Pump	Residential HVAC	16,606	10,240	1.62	16,606	16,522	1.01	19,396	9,765	1.99	3.0
RMO108	Geothermal Heat Pump	Residential HVAC	10,609	6,429	1.65	10,609	10,788	0.98	12,447	6,009	2.07	2.1
RMO109	AC Proper Sizing	Residential HVAC	2,704	1,084	2.50	2,704	1,474	1.83	1,624	1,002	1.62	2.0
RMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential AC Tuneup	4,441	3,125	1.42	4,441	3,879	1.14	3,520	2,006	1.75	2.0
RMO114	Proper Refrigerant Charging and Air Flow - SS AC	Residential AC Tuneup	6,338	2,037	3.11	6,338	4,331	1.46	4,880	1,493	3.27	2.0
RMO116	Duct Repair - SS AC	Residential Duct Testing and Repair	5,165	2,596	1.99	5,165	4,757	1.09	5,029	1,964	2.56	2.0
RMO121	Default Window With Sunscreen - SS AC	Residential Building Envelope	3,599	2,101	1.71	3,599	3,002	1.20	2,154	802	2.69	2.0
RMO124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	4,287	3,111	1.38	4,287	4,266	1.01	4,957	2,977	1.66	5.3
RMO131	14 SEER Split-System Heat Pump	Residential HVAC	11,524	4,441	2.59	11,524	9,783	1.18	11,576	3,966	2.92	2.0
RMO132	15 SEER Split-System Heat Pump	Residential HVAC	16,606	10,240	1.62	16,606	16,522	1.01	19,396	9,765	1.99	3.0
RMO134	Geothermal Heat Pump	Residential HVAC	10,609	6,429	1.65	10,609	10,788	0.98	12,447	6,009	2.07	2.1
RMO135	HVAC Proper Sizing - SS HP	Residential HVAC	2,664	1,084	2.46	2,664	1,465	1.82	1,612	1,002	1.61	2.0
RMO138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Residential AC Tuneup	4,376	3,125	1.40	4,376	3,860	1.13	3,490	2,006	1.74	2.0
RMO140	Proper Refrigerant Charging and Air Flow	Residential AC Tuneup	6,253	2,037	3.07	6,253	4,296	1.46	4,830	1,493	3.23	2.0
RMO142	Duct Repair - SS HP	Residential Duct Testing and Repair	5,165	2,596	1.99	5,165	4,757	1.09	5,029	1,964	2.56	2.0
RMO147	Default Window With Sunscreen - SS HP	Residential Building Envelope	3,421	2,101	1.63	3,421	2,948	1.16	2,078	802	2.59	2.0
RMO150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	3,593	3,111	1.15	3,593	3,575	1.00	4,109	2,977	1.38	8.0
RMO202	Ceiling R-0 to R-19 Insulation - Room AC	Residential Building Envelope	4,287	3,111	1.38	4,287	4,266	1.01	4,957	2,977	1.66	5.3
PMO301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	1,708	1,484	1.15	1,708	2,321	0.74	2,274	1,044	2.18	2.0
RMO969	Plenum Seal - SC base	Residential HVAC	2,572	834	3.08	2,572	2,034	1.26	2,504	801	3.13	2.0
RMO976	Plenum Seal - HP base	Residential HVAC	2,565	834	3.08	2,565	2,034	1.26	2,504	801	3.13	2.0
RSP101	14 SEER Split-System Air Conditioner - 13SSAC	Residential HVAC	11,246	4,371	2.57	11,246	9,903	1.14	11,762	3,896	3.02	2.0
RSP102	15 SEER Split-System Air Conditioner - 13SSAC	Residential HVAC	17,505	11,362	1.54	17,505	17,414	1.01	20,444	10,887	1.88	5.5
RSP103	17 SEER Split-System Air Conditioner - 13SSAC	Residential HVAC	29,105	21,989	1.32	29,105	32,414	0.90	37,412	21,513	1.74	2.0
RSP104	19 SEER Split-System Air Conditioner - 13SSAC	Residential HVAC	34,716	35,890	0.97	34,716	34,542	1.01	41,014	35,415	1.16	10.0
RSP105	14 SEER Split-System Heat Pump - 13SSAC	Residential HVAC	16,722	4,441	3.76	16,722	12,407	1.35	15,167	3,966	3.82	2.0
RSP106	15 SEER Split-System Heat Pump - 13SSAC	Residential HVAC	23,352	10,240	2.28	23,352	20,188	1.16	24,119	9,765	2.47	2.0
RSP107	17 SEER Split-System Heat Pump - 13SSAC	Residential HVAC	36,122	31,213	1.16	36,122	42,188	0.86	48,088	30,737	1.56	2.0
RSP108	Geothermal Heat Pump	Residential HVAC	17,029	6,429	2.65	17,029	15,305	1.11	18,642	6,009	3.10	2.1
RSP109	AC Proper Sizing	Residential HVAC	3,534	1,084	3.26	3,534	1,790	1.97	2,063	1,002	2.06	2.0
RSP116	Duct Repair - SS AC	Residential Duct Testing and Repair	8,598	2,596	3.31	8,598	6,681	1.29	7,645	1,964	3.89	2.0
RSP121	Default Window With Sunscreen - SS AC	Residential Building Envelope	4,840	2,803	1.73	4,840	4,117	1.18	3,506	1,504	2.33	2.0
RSP124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	10,702	3,481	3.07	10,702	8,826	1.21	10,853	3,347	3.24	2.0
RSP131	14 SEER Split-System Heat Pump - SS HP	Residential HVAC	16,722	4,441	3.76	16,722	12,407	1.35	15,167	3,966	3.82	2.0
RSP132	15 SEER Split-System Heat Pump - SS HP	Residential HVAC	23,352	10,240	2.28	23,352	20,188	1.16	24,119	9,765	2.47	2.0
RSP133	17 SEER Split-System Heat Pump - SS HP	Residential HVAC	36,122	31,213	1.16	36,122	42,188	0.86	48,088	30,737	1.56	2.0
RSP134	Geothermal Heat Pump	Residential HVAC	17,029	6,429	2.65	17,029	15,384	1.11	18,721	6,009	3.12	2.0
RSP135	HVAC Proper Sizing - SS HP	Residential HVAC	3,535	1,084	3.26	3,535	1,790	1.97	2,053	1,002	2.06	2.0
RSP142	Duct Repair - SS HP	Residential Duct Testing and Repair	8,598	2,596	3.31	8,598	6,681	1.29	7,645	1,964	3.89	2.0
RSP147	Default Window With Sunscreen - SS HP	Residential Building Envelope	4,671	2,803	1.67	4,671	4,059	1.15	3,424	1,504	2.29	2.0
RSP150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	9,559	3,481	2.75	9,559	8,125	1.17	9,966	3,347	2.98	2.0
RSP202	Ceiling R-0 to R-19 Insulation - Room AC	Residential Building Envelope	10,241	3,481	2.94	10,241	9,201	1.11	11,367	3,347	3.39	2.0
RSP301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	1,708	1,484	1.15	1,708	2,321	0.74	2,274	1,044	2.18	2.0
RSP962	16 SEER Split-System Air Conditioner	Residential HVAC	22,743	18,964	1.20	22,743	22,629	1.01	26,645	18,489	1.44	6.5
RSP963	18 SEER Split-System Air Conditioner	Residential HVAC	31,621	32,715	0.97	31,621	31,463	1.01	37,106	32,240	1.15	9.9
RSP964	20 SEER Split-System Air Conditioner	Residential HVAC	36,926	36,601	1.01	36,926	49,572	0.74	56,617	36,126	1.57	2.0
RSP965	16 SEER Split-System Heat Pump	Residential HVAC	29,134	21,658	1.35	29,134	28,991	1.00	33,908	21,183	1.60	4.3
RSP969	Plenum Seal - SC base	Residential HVAC	3,766	834	4.51	3,766	2,631	1.43	3,321	801	4.14	2.0
RSP970	Reflective Roof replacement (light colored)	Residential Building Envelope	13,722	6,137	2.24	13,722	13,370	1.03	15,330	5,260	2.91	2.0
RSP972	16 SEER Split-System Heat Pump	Residential HVAC	29,134	21,658	1.35	29,134	28,991	1.00	33,908	21,183	1.60	4.3
RSP976	Plenum Seal - HP base	Residential HVAC	3,766	834	4.51	3,766	2,631	1.43	3,321	801	4.14	2.0
RSP977	Reflective Roof (replacement-light colored)	Residential Building Envelope	13,722	6,137	2.24	13,722	13,370	1.03	15,330	5,260	2.91	2.0
RSP984	Reflective Roof replacement (white, base dark shingle)	Residential Building Envelope	36,246	6,137	5.91	36,246	23,222	1.56	28,689	5,260	5.45	2.0
RSP985	Reflective Roof replacement (white metal, base dark shingle)	Residential Building Envelope	36,451	6,137	5.94	36,451	26,193	1.39	32,721	5,260	6.22	2.0

Table Staff-8_Revised

Docket: 100155-EG
Staff 1st Set of Data Request

Measure Information - Cost Effectiveness												
Component Measure ID	Component Measure Name	Program Name with Measure	E-TRC Test Results			E-RIM Test Results			Participants Test Results			Payback Period (Yrs)
			Total Benefits (\$)	Total Cost (\$)	Ratio	Total Benefits (\$)	Total Cost (\$)	Ratio	Total Benefits (\$)	Total Cost (\$)	Ratio	
			RSP986	Reflective Roof replacement (white metal, base terracota tile)	Residential Building Envelope	26,509	6,137	4.32	26,509	23,866	1.11	
RSP987	Reflective Roof replacement (white, base dark shinele)	Residential Building Envelope	36,246	6,137	5.91	36,246	23,272	1.56	28,689	5,260	5.45	2.0
RSP988	Reflective Roof replacement (white metal, base dark shingle)	Residential Building Envelope	36,451	6,137	5.94	36,451	26,195	1.39	32,721	5,260	6.22	2.0
RSP989	Reflective Roof replacement (white metal, base terracota tile)	Residential Building Envelope	26,509	6,137	4.32	26,509	23,866	1.11	29,563	5,260	5.62	2.0
RSP990	Reflective Roof replacement (white, base dark shingle)	Residential Building Envelope	36,246	6,137	5.91	36,246	23,272	1.56	28,689	5,260	5.45	2.0
RSP991	Reflective Roof replacement (white metal, base dark shingle)	Residential Building Envelope	36,451	6,137	5.94	36,451	26,195	1.39	32,721	5,260	6.22	2.0
RSP992	Reflective Roof replacement (white metal, base terracota tile)	Residential Building Envelope	26,509	6,137	4.32	26,509	23,866	1.11	29,563	5,260	5.62	2.0
RSP993	Buildsmart <0.67 Energy Star (Old <0.70)	BuildSmart	55,329	16,370	3.38	55,329	41,895	1.32	49,969	14,628	3.42	2.0
RSP994	Buildsmart 0.68-0.77 (Old 0.71-0.80)	BuildSmart	25,163	10,066	2.50	25,163	21,175	1.19	23,803	8,375	2.86	2.0
CD317	Thermal Energy Storage	Business HVAC	14,082	10,051	1.40	14,082	10,620	1.33	9,508	9,151	1.04	2.0
CL317	Thermal Energy Storage	Business HVAC	14,229	10,051	1.42	14,229	11,314	1.26	10,170	9,151	1.11	2.0
LRMF127	Weather Strip/Caulk w/Blower Door - SS AC	Low Income Weatherization	837	2,591	0.32	837	3,092	0.27	2,461	1,663	1.48	0.0
LRMF192	HE Room Air Conditioner - EER 12	Power Savers Energy Efficiency	15,294	4,727	3.24	15,294	12,862	1.19	15,584	4,545	3.43	0.0
LRMF231	CFL (18-Watt integral ballast), 2.5 hr/day	Power Savers Energy Audit	2,627	947	2.77	2,627	3,627	0.72	4,265	681	6.26	0.0
LRMF301	HE Refrigerator - Energy Star version of above	Power Savers Energy Efficiency	3,139	5,624	0.56	3,139	7,559	0.42	8,163	5,261	1.55	0.0
LRMF405	Low Flow Showerhead	Power Savers Energy Audit	1,380	222	6.21	1,380	1,572	0.88	1,848	67	27.78	0.0
LRMF406	Pipe Wrap	Power Savers Energy Audit	363	246	1.47	363	580	0.63	561	114	4.94	0.0
LRMF407	Faucet Aerators	Power Savers Energy Audit	546	189	2.89	546	721	0.76	736	33	22.13	0.0
LRMO127	Weather Strip/Caulk w/Blower Door - SS AC	Low Income Weatherization	894	2,591	0.35	894	3,144	0.28	2,531	1,663	1.52	0.0
LRMO192	HE Room Air Conditioner - EER 12	Power Savers Energy Efficiency	13,761	4,727	2.91	13,761	11,205	1.23	13,405	4,545	2.95	0.0
LRMO231	CFL (18-Watt integral ballast), 2.5 hr/day	Power Savers Energy Audit	2,627	947	2.77	2,627	3,627	0.72	4,265	681	6.26	0.0
LRMO301	HE Refrigerator - Energy Star version of above	Power Savers Energy Efficiency	3,139	5,624	0.56	3,139	7,559	0.42	8,163	5,261	1.55	0.0
LRMO405	Low Flow Showerhead	Power Savers Energy Audit	1,592	222	7.17	1,592	1,817	0.88	2,170	67	32.63	0.0
LRMO406	Pipe Wrap	Power Savers Energy Audit	413	246	1.68	413	639	0.65	638	114	5.62	0.0
LRMO407	Faucet Aerators	Power Savers Energy Audit	622	189	3.30	622	810	0.77	854	33	25.67	0.0
LRSF127	Weather Strip/Caulk w/Blower Door - SS AC	Low Income Weatherization	1,351	2,591	0.52	1,351	3,671	0.37	3,224	1,663	1.94	0.0
LRSF192	HE Room Air Conditioner - EER 12	Power Savers Energy Efficiency	15,715	4,727	3.32	15,715	13,346	1.18	16,222	4,545	3.57	0.0
LRSF231	CFL (18-Watt integral ballast), 2.5 hr/day	Power Savers Energy Audit	2,627	947	2.77	2,627	3,627	0.72	4,265	681	6.26	0.0
LRSF301	HE Refrigerator - Energy Star version of above	Power Savers Energy Efficiency	3,139	5,624	0.56	3,139	7,559	0.42	8,163	5,261	1.55	0.0
LRSF405	Low Flow Showerhead	Power Savers Energy Audit	2,104	222	9.48	2,104	2,329	0.90	2,844	67	42.76	0.0
LRSF406	Pipe Wrap	Power Savers Energy Audit	545	246	2.21	545	771	0.71	812	114	7.16	0.0
LRSF407	Faucet Aerators	Power Savers Energy Audit	822	189	4.36	822	1,011	0.81	1,117	33	33.59	0.0
LRMF192W	HE Room Air Conditioner - EER 12	Low Income Weatherization	15,294	5,088	3.01	15,294	13,223	1.16	15,584	4,545	3.43	0.0
LRMO192W	HE Room Air Conditioner - EER 12	Low Income Weatherization	13,761	5,088	2.70	13,761	11,566	1.19	13,405	4,545	2.95	0.0
LRSF192W	HE Room Air Conditioner - EER 12	Low Income Weatherization	15,715	5,088	3.09	15,715	13,707	1.15	16,222	4,545	3.57	0.0
LRMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Power Savers Energy Efficiency	3,806	2,381	1.60	3,806	4,118	0.92	4,463	2,006	2.23	0.0
LRMF114	Proper Refrigerant Charging and Air Flow - SS AC	Power Savers Energy Efficiency	5,436	1,676	3.24	5,436	4,601	1.18	5,453	1,493	3.65	0.0
LRMF116	Duct Repair - SS AC	Power Savers Energy Efficiency	3,857	2,176	1.77	3,857	4,013	0.96	4,492	1,964	2.29	0.0
LRMF124	Ceiling R-0 to R-19 Insulation - SS AC	Power Savers Energy Efficiency	4,360	1,990	2.19	4,360	4,491	0.97	5,350	1,945	2.75	0.0
LRMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Power Savers Energy Efficiency	4,441	2,381	1.86	4,441	4,346	1.05	4,631	2,006	2.31	0.0
LRMO114	Proper Refrigerant Charging and Air Flow - SS AC	Power Savers Energy Efficiency	6,338	1,676	3.78	6,338	4,785	1.32	5,694	1,493	3.81	0.0
LRMO116	Duct Repair - SS AC	Power Savers Energy Efficiency	5,165	2,176	2.37	5,165	4,684	1.10	5,376	1,964	2.74	0.0
LRMO124	Ceiling R-0 to R-19 Insulation - SS AC	Power Savers Energy Efficiency	4,287	3,022	1.42	4,287	5,082	0.84	5,863	2,977	1.97	0.0
LRSF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Power Savers Energy Efficiency	7,074	2,381	2.97	7,074	6,684	1.06	7,840	2,006	3.91	0.0
LRSF114	Proper Refrigerant Charging and Air Flow - SS AC	Power Savers Energy Efficiency	8,647	1,676	5.16	8,647	6,614	1.31	8,102	1,493	5.43	0.0
LRSF116	Duct Repair - SS AC	Power Savers Energy Efficiency	8,598	2,176	3.95	8,598	6,874	1.25	8,258	1,964	4.20	0.0
LRSF124	Ceiling R-0 to R-19 Insulation - SS AC	Power Savers Energy Efficiency	10,702	3,392	3.15	10,702	9,614	1.11	11,730	3,347	3.50	0.0
LRMF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Low Income Weatherization	3,806	3,125	1.22	3,806	4,862	0.78	4,463	2,006	2.23	0.0
LRMF114W	Proper Refrigerant Charging and Air Flow - SS AC	Low Income Weatherization	5,436	2,037	2.67	5,436	4,962	1.10	5,453	1,493	3.65	0.0
LRMO112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Low Income Weatherization	4,441	3,125	1.42	4,441	4,999	0.89	4,631	2,006	2.31	0.0
LRMO114W	Proper Refrigerant Charging and Air Flow - SS AC	Low Income Weatherization	6,338	2,037	3.11	6,338	5,146	1.23	5,694	1,493	3.81	0.0
LRSF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Low Income Weatherization	7,074	3,125	2.26	7,074	7,428	0.95	7,840	2,006	3.91	0.0
LRSF114W	Proper Refrigerant Charging and Air Flow - SS AC	Low Income Weatherization	8,647	2,037	4.25	8,647	6,975	1.24	8,102	1,493	5.43	0.0

Note: All dollar values shown are NPV 2009\$.

Q.

For the following questions (6-9), only consider those programs which feature multiple measures. Please provide the name of each measure, and indicate with which program it is associated. Include all measures on a single table, adding columns as necessary.

Please provide, for each measure identified by the criteria above, the incentive rate provided and the estimated customer equipment cost. Indicate the amount of non-recurring expenses by category, including administrative, equipment, and incentives/rebates to customers. As part of this response, please also provide the rate for recurring expenses by category. Please complete the table below and provide an electronic copy in Excel (.xls file format) with the hard copy response.

Measure Information - Per Customer Costs		
Component Measure Name	-	
Program Name with Measure	-	
Measure Incentives & Duration		
Incentive / Rebate Rate		
Customer Equipment Cost	(\$)	
Estimated Life of Measure	(Years)	
Non-Recurring Measure Expenses		
Administrative	(\$/Customer)	
Equipment	(\$/Customer)	
Incentive / Rebate (Typical)	(\$/Customer)	
Recurring Measure Expenses		
Administrative	(\$/Customer/Year)	
Equipment	(\$/Customer/Year)	
O&M	(\$/Customer/Year)	
Incentive / Rebate (Typical)	(\$/Customer/Year)	

A.

Please see Table - Staff's 1st Data Request No. 9 - Revised for the requested information.

DOCUMENT NUMBER: 05437 JUL-19

Measure Information			Measure Incentives & Duration			Non-Recurring Measure Expenses (\$/Participant) ⁽¹⁾			Recurring Measure Expenses (\$/Participant) ⁽¹⁾			
Component Measure ID	Component Measure Name	Program Name with Measure	Incentive / Rebate Rate (\$) ⁽¹⁾	Customer Equipment Cost (\$) ⁽²⁾	Estimated Life of Measure	Administrative ⁽²⁾	Equipment	Incentive / Rebate (Typical)	Administrative	Equipment	O&M	Incentive / Rebate (Typical)
LRMF192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	350.00	350.00	10	41.86	0.00	350.00	0.00	0.00	0.00	0.00
LRMO192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	350.00	350.00	10	41.86	0.00	350.00	0.00	0.00	0.00	0.00
LRSF192W	HE Room Air Conditioner - EER 12	Residential Low Income Weatherization	350.00	350.00	10	41.86	0.00	350.00	0.00	0.00	0.00	0.00
LRMF127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	75.00	75.00	5	41.86	0.00	75.00	0.00	0.00	0.00	0.00
LRMO127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	75.00	75.00	5	41.86	0.00	75.00	0.00	0.00	0.00	0.00
LRSF127	Weather Strip/Caulk w/Blower Door - SS AC	Residential Low Income Weatherization	75.00	75.00	5	41.86	0.00	75.00	0.00	0.00	0.00	0.00
LRMF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	75.00	75.00	4	41.86	0.00	75.00	0.00	0.00	0.00	0.00
LRMO112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	75.00	75.00	4	41.86	0.00	75.00	0.00	0.00	0.00	0.00
LRSF112W	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Low Income Weatherization	75.00	75.00	4	41.86	0.00	75.00	0.00	0.00	0.00	0.00
LRMF114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	115.00	115.00	10	41.86	0.00	115.00	0.00	0.00	0.00	0.00
LRMO114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	115.00	115.00	10	41.86	0.00	115.00	0.00	0.00	0.00	0.00
LRSF114W	Proper Refrigerant Charging and Air Flow - SS AC	Residential Low Income Weatherization	115.00	115.00	10	41.86	0.00	115.00	0.00	0.00	0.00	0.00
LRMF231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	30.74	30.74	5	11.98	0.00	30.74	0.00	0.00	0.00	0.00
LRMO231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	30.74	30.74	5	11.98	0.00	30.74	0.00	0.00	0.00	0.00
LRSF231	CFL (18-Watt integral ballast), 2.5 hr/day	Residential Power Savers Energy Audit	30.74	30.74	5	11.98	0.00	30.74	0.00	0.00	0.00	0.00
LRMF407	Faucet Aerators	Residential Power Savers Energy Audit	2.56	2.56	10	11.98	0.00	2.56	0.00	0.00	0.00	0.00
LRMO407	Faucet Aerators	Residential Power Savers Energy Audit	2.56	2.56	10	11.98	0.00	2.56	0.00	0.00	0.00	0.00
LRSF407	Faucet Aerators	Residential Power Savers Energy Audit	2.56	2.56	10	11.98	0.00	2.56	0.00	0.00	0.00	0.00
LRMF405	Low Flow Showerhead	Residential Power Savers Energy Audit	5.12	5.12	10	11.98	0.00	5.12	0.00	0.00	0.00	0.00
LRMO405	Low Flow Showerhead	Residential Power Savers Energy Audit	5.12	5.12	10	11.98	0.00	5.12	0.00	0.00	0.00	0.00
LRSF405	Low Flow Showerhead	Residential Power Savers Energy Audit	5.12	5.12	10	11.98	0.00	5.12	0.00	0.00	0.00	0.00
LRMF406	Pipe Wrap	Residential Power Savers Energy Audit	10.25	10.25	13	11.98	0.00	10.25	0.00	0.00	0.00	0.00
LRMO406	Pipe Wrap	Residential Power Savers Energy Audit	10.25	10.25	13	11.98	0.00	10.25	0.00	0.00	0.00	0.00
LRSF406	Pipe Wrap	Residential Power Savers Energy Audit	10.25	10.25	13	11.98	0.00	10.25	0.00	0.00	0.00	0.00
LRMF192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	350.00	350.00	10	14.04	0.00	350.00	0.00	0.00	0.00	0.00
LRMO192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	350.00	350.00	10	14.04	0.00	350.00	0.00	0.00	0.00	0.00
LRSF192	HE Room Air Conditioner - EER 12	Residential Power Savers Energy Efficiency	350.00	350.00	10	14.04	0.00	350.00	0.00	0.00	0.00	0.00
LRMF301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	500.00	500.00	14	34.55	0.00	500.00	0.00	0.00	0.00	0.00
LRMO301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	500.00	500.00	14	34.55	0.00	500.00	0.00	0.00	0.00	0.00
LRSF301	HE Refrigerator - Energy Star version of above	Residential Power Savers Energy Efficiency	500.00	500.00	14	34.55	0.00	500.00	0.00	0.00	0.00	0.00
LRMF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	222.48	222.48	20	5.14	0.00	222.48	0.00	0.00	0.00	0.00
LRMO124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	340.52	340.52	20	5.14	0.00	340.52	0.00	0.00	0.00	0.00
LRSF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Power Savers Energy Efficiency	382.80	382.80	20	5.14	0.00	382.80	0.00	0.00	0.00	0.00
LRMF116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	239.00	239.00	25	25.78	0.00	239.00	0.00	0.00	0.00	0.00
LRMO116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	239.00	239.00	25	25.78	0.00	239.00	0.00	0.00	0.00	0.00
LRSF116	Duct Repair - SS AC	Residential Power Savers Energy Efficiency	239.00	239.00	25	25.78	0.00	239.00	0.00	0.00	0.00	0.00
LRMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	75.00	75.00	4	14.04	0.00	75.00	0.00	0.00	0.00	0.00
LRMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	75.00	75.00	4	14.04	0.00	75.00	0.00	0.00	0.00	0.00
LRSF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential Power Savers Energy Efficiency	75.00	75.00	4	14.04	0.00	75.00	0.00	0.00	0.00	0.00
LRMF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	115.00	115.00	10	14.04	0.00	115.00	0.00	0.00	0.00	0.00
LRMO114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	115.00	115.00	10	14.04	0.00	115.00	0.00	0.00	0.00	0.00
LRSF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential Power Savers Energy Efficiency	115.00	115.00	10	14.04	0.00	115.00	0.00	0.00	0.00	0.00

Measure Information			Measure Incentives & Duration			Non-Recurring Measure Expenses (\$/Participant) ⁽¹⁾			Recurring Measure Expenses (\$/Participant) ⁽¹⁾			
Component Measure ID	Component Measure Name	Program Name with Measure	Incentive / Rebate Rate (\$) ⁽¹⁾	Customer Equipment Cost (\$) ⁽²⁾	Estimated Life of Measure	Administrative ⁽²⁾	Equipment	Incentive / Rebate (Typical)	Administrative	Equipment	O&M	Incentive / Rebate (Typical)
RMF101	14 SEER Split-System Air Conditioner	Residential Air-Conditioning	212.00	389.00	15	47.46	0.00	212.00	0.00	0.00	0.00	0.00
RMF102	15 SEER Split-System Air Conditioner	Residential Air-Conditioning	382.00	1,087.00	15	47.46	0.00	382.00	0.00	0.00	0.00	0.00
RMO101	14 SEER Split-System Air Conditioner	Residential Air-Conditioning	261.00	389.00	15	47.46	0.00	261.00	0.00	0.00	0.00	0.00
RMO102	15 SEER Split-System Air Conditioner	Residential Air-Conditioning	392.00	1,087.00	15	47.46	0.00	392.00	0.00	0.00	0.00	0.00
RSF101	14 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	256.00	389.00	15	47.46	0.00	256.00	0.00	0.00	0.00	0.00
RSF102	15 SEER Split-System Air Conditioner- 13SSAC	Residential Air-Conditioning	734.00	1,087.00	15	47.46	0.00	734.00	0.00	0.00	0.00	0.00
RSF103	17 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	1,836.00	2,148.00	15	47.46	0.00	1,836.00	0.00	0.00	0.00	0.00
RSF104	19 SEER Split-System Air Conditioner - 13SSAC	Residential Air-Conditioning	1,517.00	3,536.00	15	47.46	0.00	1,517.00	0.00	0.00	0.00	0.00
RSF962	16 SEER Split-System Air Conditioner	Residential Air-Conditioning	997.00	1,846.00	15	47.46	0.00	997.00	0.00	0.00	0.00	0.00
RSF963	18 SEER Split-System Air Conditioner	Residential Air-Conditioning	1,460.00	3,219.00	15	47.46	0.00	1,460.00	0.00	0.00	0.00	0.00
RSF964	20 SEER Split-System Air Conditioner	Residential Air-Conditioning	3,178.00	3,607.00	15	47.46	0.00	3,178.00	0.00	0.00	0.00	0.00
RMF105	14 SEER Split-System Heat Pump	Residential Air-Conditioning	268.00	396.00	15	47.46	0.00	268.00	0.00	0.00	0.00	0.00
RMF106	15 SEER Split-System Heat Pump	Residential Air-Conditioning	639.00	975.00	15	47.46	0.00	639.00	0.00	0.00	0.00	0.00
RMF131	14 SEER Split-System Heat Pump	Residential Air-Conditioning	268.00	396.00	15	47.46	0.00	268.00	0.00	0.00	0.00	0.00
RMF132	15 SEER Split-System Heat Pump	Residential Air-Conditioning	639.00	975.00	15	47.46	0.00	639.00	0.00	0.00	0.00	0.00
RMO105	14 SEER Split-System Heat Pump	Residential Air-Conditioning	267.00	396.00	15	47.46	0.00	267.00	0.00	0.00	0.00	0.00
RMO106	15 SEER Split-System Heat Pump	Residential Air-Conditioning	684.00	975.00	15	47.46	0.00	684.00	0.00	0.00	0.00	0.00
RMO131	14 SEER Split-System Heat Pump	Residential Air-Conditioning	267.00	396.00	15	47.46	0.00	267.00	0.00	0.00	0.00	0.00
RMO132	15 SEER Split-System Heat Pump	Residential Air-Conditioning	684.00	975.00	15	47.46	0.00	684.00	0.00	0.00	0.00	0.00
RSF105	14 SEER Split-System Heat Pump - 13SSAC	Residential Air-Conditioning	212.00	396.00	15	47.46	0.00	212.00	0.00	0.00	0.00	0.00
RSF106	15 SEER Split-System Heat Pump - 13SSAC	Residential Air-Conditioning	724.00	975.00	15	47.46	0.00	724.00	0.00	0.00	0.00	0.00
RSF107	17 SEER Split-System Heat Pump - 13SSAC	Residential Air-Conditioning	2,706.00	3,069.00	15	47.46	0.00	2,706.00	0.00	0.00	0.00	0.00
RSF131	14 SEER Split-System Heat Pump- SS HP	Residential Air-Conditioning	212.00	396.00	15	47.46	0.00	212.00	0.00	0.00	0.00	0.00
RSF132	15 SEER Split-System Heat Pump- SS HP	Residential Air-Conditioning	724.00	975.00	15	47.46	0.00	724.00	0.00	0.00	0.00	0.00
RSF133	17 SEER Split-System Heat Pump- SS HP	Residential Air-Conditioning	2,706.00	3,069.00	15	47.46	0.00	2,706.00	0.00	0.00	0.00	0.00
RSF965	16 SEER Split-System Heat Pump	Residential Air-Conditioning	1,438.00	2,115.00	15	47.46	0.00	1,438.00	0.00	0.00	0.00	0.00
RSF972	16 SEER Split-System Heat Pump	Residential Air-Conditioning	1,438.00	2,115.00	15	47.46	0.00	1,438.00	0.00	0.00	0.00	0.00
RMF108	Geothermal Heat Pump	Residential Air-Conditioning	434.00	600.00	15	41.86	0.00	434.00	0.00	0.00	0.00	0.00
RMF134	Geothermal Heat Pump	Residential Air-Conditioning	434.00	600.00	15	41.86	0.00	434.00	0.00	0.00	0.00	0.00
RMO108	Geothermal Heat Pump	Residential Air-Conditioning	476.00	600.00	15	41.86	0.00	476.00	0.00	0.00	0.00	0.00
RMO134	Geothermal Heat Pump	Residential Air-Conditioning	476.00	600.00	15	41.86	0.00	476.00	0.00	0.00	0.00	0.00
RSF108	Geothermal Heat Pump	Residential Air-Conditioning	376.00	600.00	15	41.86	0.00	376.00	0.00	0.00	0.00	0.00
RSF134	Geothermal Heat Pump	Residential Air-Conditioning	385.95	600.00	15	41.86	0.00	385.95	0.00	0.00	0.00	0.00
RMF969	Plenum Seal - SC base	Residential Air-Conditioning	54.03	80.00	15	3.28	0.00	54.03	0.00	0.00	0.00	0.00
RMF976	Plenum Seal - HP base	Residential Air-Conditioning	54.03	80.00	15	3.28	0.00	54.03	0.00	0.00	0.00	0.00
RMO969	Plenum Seal - SC base	Residential Air-Conditioning	51.34	80.00	15	3.28	0.00	51.34	0.00	0.00	0.00	0.00
RMO976	Plenum Seal - HP base	Residential Air-Conditioning	51.34	80.00	15	3.28	0.00	51.34	0.00	0.00	0.00	0.00
RSF969	Plenum Seal - SC base	Residential Air-Conditioning	38.80	80.00	15	3.28	0.00	38.80	0.00	0.00	0.00	0.00
RSF976	Plenum Seal - HP base	Residential Air-Conditioning	38.80	80.00	15	3.28	0.00	38.80	0.00	0.00	0.00	0.00
RMF109	AC Proper Sizing	Residential Air-Conditioning	83.52	100.00	15	8.20	0.00	83.52	0.00	0.00	0.00	0.00
RMF135	HVAC Proper Sizing - SS HP	Residential Air-Conditioning	83.42	100.00	15	8.20	0.00	83.42	0.00	0.00	0.00	0.00
RMO109	AC Proper Sizing	Residential Air-Conditioning	82.59	100.00	15	8.20	0.00	82.59	0.00	0.00	0.00	0.00
RMO135	HVAC Proper Sizing - SS HP	Residential Air-Conditioning	82.85	100.00	15	8.20	0.00	82.85	0.00	0.00	0.00	0.00
RSF109	AC Proper Sizing	Residential Air-Conditioning	73.39	100.00	15	8.20	0.00	73.39	0.00	0.00	0.00	0.00
RSF135	HVAC Proper Sizing - SS HP	Residential Air-Conditioning	73.38	100.00	15	8.20	0.00	73.38	0.00	0.00	0.00	0.00

Measure Information			Measure Incentives & Duration			Non-Recurring Measure Expenses (\$/Participant) ⁽¹⁾			Recurring Measure Expenses (\$/Participant) ⁽¹⁾			
Component Measure ID	Component Measure Name	Program Name with Measure	Incentive / Rebate Rate (\$) ⁽¹⁾	Customer Equipment Cost (\$) ⁽²⁾	Estimated Life of Measure	Administrative ⁽²⁾	Equipment	Incentive / Rebate (Typical)	Administrative	Equipment	O&M	Incentive / Rebate (Typical)
RMF116	Duct Repair - SS AC	Residential Duct System Testing and Repair	150.76	239.00	25	76.86	0.00	150.76	0.00	0.00	0.00	0.00
RMF142	Duct Repair - SS HP	Residential Duct System Testing and Repair	150.76	239.00	25	76.86	0.00	150.76	0.00	0.00	0.00	0.00
RMO116	Duct Repair - SS AC	Residential Duct System Testing and Repair	187.50	239.00	25	76.86	0.00	187.50	0.00	0.00	0.00	0.00
RMO142	Duct Repair - SS HP	Residential Duct System Testing and Repair	187.50	239.00	25	76.86	0.00	187.50	0.00	0.00	0.00	0.00
RSF116	Duct Repair - SS AC	Residential Duct System Testing and Repair	148.10	239.00	25	76.86	0.00	148.10	0.00	0.00	0.00	0.00
RSF142	Duct Repair - SS HP	Residential Duct System Testing and Repair	148.10	239.00	25	76.86	0.00	148.10	0.00	0.00	0.00	0.00
RMF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	170.98	222.48	20	15.32	0.00	170.98	0.00	0.00	0.00	0.00
RMF150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	170.64	222.48	20	15.32	0.00	170.64	0.00	0.00	0.00	0.00
RMF202	Ceiling R-0 to R-19 Insulation- Room AC	Residential Building Envelope	170.98	222.48	20	15.32	0.00	170.98	0.00	0.00	0.00	0.00
RMO124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	213.38	340.52	20	15.32	0.00	213.38	0.00	0.00	0.00	0.00
RMO150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	186.19	340.52	20	15.32	0.00	186.19	0.00	0.00	0.00	0.00
RMO202	Ceiling R-0 to R-19 Insulation- Room AC	Residential Building Envelope	213.38	340.52	20	15.32	0.00	213.38	0.00	0.00	0.00	0.00
RSF124	Ceiling R-0 to R-19 Insulation - SS AC	Residential Building Envelope	259.66	382.80	20	15.32	0.00	259.66	0.00	0.00	0.00	0.00
RSF150	Ceiling R-0 to R-19 Insulation - SS HP	Residential Building Envelope	273.09	382.80	20	15.32	0.00	273.09	0.00	0.00	0.00	0.00
RSF202	Ceiling R-0 to R-19 Insulation- Room AC	Residential Building Envelope	251.92	382.80	20	15.32	0.00	251.92	0.00	0.00	0.00	0.00
RMF971	Reflective Roof Coating	Residential Building Envelope	3,869.39	9,470.90	10	74.87	0.00	3,869.39	0.00	0.00	0.00	0.00
RMF978	Reflective Roof Coating	Residential Building Envelope	3,869.39	9,470.90	10	74.87	0.00	3,869.39	0.00	0.00	0.00	0.00
RSF970	Reflective Roof replacement (light colored)	Residential Building Envelope	559.34	721.00	30	120.13	0.00	559.34	0.00	0.00	0.00	0.00
RSF977	Reflective Roof (replacement-light colored)	Residential Building Envelope	559.34	721.00	30	120.13	0.00	559.34	0.00	0.00	0.00	0.00
RSF984	Reflective Roof replacement (white, base dark shi	Residential Building Envelope	359.49	721.00	30	120.13	0.00	359.49	0.00	0.00	0.00	0.00
RSF985	Reflective Roof replacement (white metal, base d	Residential Building Envelope	299.17	721.00	30	120.13	0.00	299.17	0.00	0.00	0.00	0.00
RSF986	Reflective Roof replacement (white metal, base te	Residential Building Envelope	346.42	721.00	30	120.13	0.00	346.42	0.00	0.00	0.00	0.00
RSF987	Reflective Roof replacement (white, base dark shi	Residential Building Envelope	359.49	721.00	30	120.13	0.00	359.49	0.00	0.00	0.00	0.00
RSF988	Reflective Roof replacement (white metal, base d	Residential Building Envelope	299.17	721.00	30	120.13	0.00	299.17	0.00	0.00	0.00	0.00
RSF989	Reflective Roof replacement (white metal, base te	Residential Building Envelope	346.42	721.00	30	120.13	0.00	346.42	0.00	0.00	0.00	0.00
RSF990	Reflective Roof replacement (white, base dark shi	Residential Building Envelope	359.49	721.00	30	120.13	0.00	359.49	0.00	0.00	0.00	0.00
RSF991	Reflective Roof replacement (white metal, base d	Residential Building Envelope	299.17	721.00	30	120.13	0.00	299.17	0.00	0.00	0.00	0.00
RSF992	Reflective Roof replacement (white metal, base te	Residential Building Envelope	346.42	721.00	30	120.13	0.00	346.42	0.00	0.00	0.00	0.00
RMO121	Default Window With Sunscreen - SS AC	Residential Building Envelope	28.01	61.76	10	100.00	0.00	28.01	0.00	0.00	0.00	0.00
RMO147	Default Window With Sunscreen - SS HP	Residential Building Envelope	29.68	61.76	10	100.00	0.00	29.68	0.00	0.00	0.00	0.00
RSF121	Default Window With Sunscreen - SS AC	Residential Building Envelope	64.23	115.83	10	100.00	0.00	64.23	0.00	0.00	0.00	0.00
RSF147	Default Window With Sunscreen - SS HP	Residential Building Envelope	66.03	115.83	10	100.00	0.00	66.03	0.00	0.00	0.00	0.00
RMF994	Buildsmart 0.68-0.77 (Old 0.71<0.80)	Residential New Construction (BuildSmart®)	751.61	907.00	30	238.67	0.00	751.61	0.00	0.00	0.00	0.00
RSF994	Buildsmart 0.68-0.77 (Old 0.71<0.80)	Residential New Construction (BuildSmart®)	892.02	1,141.00	30	238.67	0.00	892.02	0.00	0.00	0.00	0.00
RMF993	Buildsmart <0.67 Energy Star (Old <0.70)	Residential New Construction (BuildSmart®)	1,448.97	1,782.00	30	238.67	0.00	1,448.97	0.00	0.00	0.00	0.00
RSF993	Buildsmart <0.67 Energy Star (Old <0.70)	Residential New Construction (BuildSmart®)	1,445.70	2,005.00	30	238.67	0.00	1,445.70	0.00	0.00	0.00	0.00
RMF112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential AC Tune-Up & Maintenance	20.97	75.00	4	41.86	0.00	20.97	0.00	0.00	0.00	0.00
RMO112	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Residential AC Tune-Up & Maintenance	17.94	75.00	4	41.86	0.00	17.94	0.00	0.00	0.00	0.00
RMF138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Residential AC Tune-Up & Maintenance	20.60	75.00	4	41.86	0.00	20.60	0.00	0.00	0.00	0.00
RMO138	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Residential AC Tune-Up & Maintenance	18.76	75.00	4	41.86	0.00	18.76	0.00	0.00	0.00	0.00
RMF140	Proper Refrigerant Charging and Air Flow	Residential AC Tune-Up & Maintenance	36.84	115.00	10	41.86	0.00	36.84	0.00	0.00	0.00	0.00
RMO140	Proper Refrigerant Charging and Air Flow	Residential AC Tune-Up & Maintenance	34.20	115.00	10	41.86	0.00	34.20	0.00	0.00	0.00	0.00
RMF114	Proper Refrigerant Charging and Air Flow - SS AC	Residential AC Tune-Up & Maintenance	37.45	115.00	10	41.86	0.00	37.45	0.00	0.00	0.00	0.00
RMO114	Proper Refrigerant Charging and Air Flow - SS AC	Residential AC Tune-Up & Maintenance	33.11	115.00	10	41.86	0.00	33.11	0.00	0.00	0.00	0.00
RMF301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	77.00	99.20	14	41.86	0.00	77.00	0.00	0.00	0.00	0.00
RMO301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	77.00	99.20	14	41.86	0.00	77.00	0.00	0.00	0.00	0.00
RSF301	HE Refrigerator - Energy Star version of above	Residential Refrigerator Replacement	77.00	99.20	14	41.86	0.00	77.00	0.00	0.00	0.00	0.00

Measure Information			Measure Incentives & Duration			Non-Recurring Measure Expenses (\$/Participant) ⁽¹⁾			Recurring Measure Expenses (\$/Participant) ⁽¹⁾			
Component Measure ID	Component Measure Name	Program Name with Measure	Incentive / Rebate Rate (\$) ⁽¹⁾	Customer Equipment Cost (\$) ⁽²⁾	Estimated Life of Measure	Administrative ⁽²⁾	Equipment	Incentive / Rebate (Typical)	Administrative	Equipment	O&M	Incentive / Rebate (Typical)
CD301	Centrifugal Chiller, 0.53 kW/ton, 500 tons	Business Heating, Ventilating, & Air-Conditioning	576.34	1,392.77	20	43.38	0.00	576.34	0.00	0.00	0.00	0.00
CL301	Centrifugal Chiller, 0.53 kW/ton, 500 tons	Business Heating, Ventilating, & Air-Conditioning	571.36	1,392.77	20	43.38	0.00	571.36	0.00	0.00	0.00	0.00
CD903	VFD for Centrifugal Chiller	Business Heating, Ventilating, & Air-Conditioning	472.34	3,421.67	20	52.06	0.00	472.34	0.00	0.00	0.00	0.00
CL903	VFD for Centrifugal Chiller	Business Heating, Ventilating, & Air-Conditioning	472.34	3,421.67	20	52.06	0.00	472.34	0.00	0.00	0.00	0.00
CD405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	3,538.00	4,024.42	15	78.15	0.00	3,538.00	0.00	0.00	0.00	0.00
CL405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	3,525.00	4,024.42	15	78.15	0.00	3,525.00	0.00	0.00	0.00	0.00
CS405	Demand Control Ventilation (DCV)	Business Heating, Ventilating, & Air-Conditioning	3,555.00	4,024.42	15	78.15	0.00	3,555.00	0.00	0.00	0.00	0.00
CD902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	2,033.70	3,319.27	15	70.97	0.00	2,033.70	0.00	0.00	0.00	0.00
CL902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	2,033.70	3,319.27	15	70.97	0.00	2,033.70	0.00	0.00	0.00	0.00
CS902	Exhaust and Make-up Air Control System	Business Heating, Ventilating, & Air-Conditioning	1,649.00	3,319.27	15	70.97	0.00	1,649.00	0.00	0.00	0.00	0.00
CD321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	1,136.67	1,885.70	15	42.17	0.00	1,136.67	0.00	0.00	0.00	0.00
CD341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	1,110.38	1,885.70	15	42.17	0.00	1,110.38	0.00	0.00	0.00	0.00
CL321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	1,160.78	1,885.70	15	42.17	0.00	1,160.78	0.00	0.00	0.00	0.00
CL341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	1,138.47	1,885.70	15	42.17	0.00	1,138.47	0.00	0.00	0.00	0.00
CS321	DX Packaged System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	1,075.48	1,885.70	15	42.17	0.00	1,075.48	0.00	0.00	0.00	0.00
CS341	Packaged HP System, EER=10.9, 10 tons	Business Heating, Ventilating, & Air-Conditioning	1,075.48	1,885.70	15	42.17	0.00	1,075.48	0.00	0.00	0.00	0.00
CD322	Hybrid Desiccant-DX System (Trane CDQ)	Business Heating, Ventilating, & Air-Conditioning	1,070.94	2,228.41	15	42.17	0.00	1,070.94	0.00	0.00	0.00	0.00
CL322	Hybrid Desiccant-DX System (Trane CDQ)	Business Heating, Ventilating, & Air-Conditioning	1,066.95	2,228.41	15	42.17	0.00	1,066.95	0.00	0.00	0.00	0.00
CD361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	1,044.31	1,793.34	15	42.17	0.00	1,044.31	0.00	0.00	0.00	0.00
CL361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	1,068.41	1,793.34	15	42.17	0.00	1,068.41	0.00	0.00	0.00	0.00
CS361	HE PTAC, EER=9.6, 1 ton	Business Heating, Ventilating, & Air-Conditioning	999.48	1,793.34	15	42.17	0.00	999.48	0.00	0.00	0.00	0.00
CD404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	843.46	2,262.98	15	88.40	0.00	843.46	0.00	0.00	0.00	0.00
CL404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	839.47	2,262.98	15	88.40	0.00	839.47	0.00	0.00	0.00	0.00
CS404	Electronically Commutated Motors (ECM) on an A	Business Heating, Ventilating, & Air-Conditioning	343.26	2,262.98	15	88.40	0.00	343.26	0.00	0.00	0.00	0.00
CD406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	3,321.00	3,749.11	20	45.54	0.00	3,321.00	0.00	0.00	0.00	0.00
CL406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	3,322.00	3,749.11	20	45.54	0.00	3,322.00	0.00	0.00	0.00	0.00
CS406	Energy Recovery Ventilation (ERV)	Business Heating, Ventilating, & Air-Conditioning	3,404.00	3,749.11	20	45.54	0.00	3,404.00	0.00	0.00	0.00	0.00
CD317	Thermal Energy Storage	Business Heating, Ventilating, & Air-Conditioning	726.08	963.25	20	103.00	0.00	726.08	0.00	0.00	0.00	0.00
CL317	Thermal Energy Storage	Business Heating, Ventilating, & Air-Conditioning	708.78	963.25	20	103.00	0.00	708.78	0.00	0.00	0.00	0.00
CD141	CFL Hardwired, Modular 18W	Business Lighting	357.23	1,075.27	6	26.43	0.00	357.23	0.00	0.00	0.00	0.00
CL141	CFL Hardwired, Modular 18W	Business Lighting	348.41	1,075.27	6	26.43	0.00	348.41	0.00	0.00	0.00	0.00
CS141	CFL Hardwired, Modular 18W	Business Lighting	322.35	1,075.27	6	26.43	0.00	322.35	0.00	0.00	0.00	0.00
CD152	PSMH, 250 W, electronic ballast	Business Lighting	303.02	1,021.06	13	26.43	0.00	303.02	0.00	0.00	0.00	0.00
CL152	PSMH, 250 W, electronic ballast	Business Lighting	294.20	1,021.06	13	26.43	0.00	294.20	0.00	0.00	0.00	0.00
CS152	PSMH, 250 W, electronic ballast	Business Lighting	268.14	1,021.06	13	26.43	0.00	268.14	0.00	0.00	0.00	0.00
CD112	Premium T8, EB, Reflector	Business Lighting	1,540.55	2,258.59	20	26.43	0.00	1,540.55	0.00	0.00	0.00	0.00
CD122	ROB Premium T8, EB, Reflector	Business Lighting	201.99	920.04	20	26.43	0.00	201.99	0.00	0.00	0.00	0.00
CL112	Premium T8, EB, Reflector	Business Lighting	1,531.73	2,258.59	20	26.43	0.00	1,531.73	0.00	0.00	0.00	0.00
CL122	ROB Premium T8, EB, Reflector	Business Lighting	193.18	920.04	20	26.43	0.00	193.18	0.00	0.00	0.00	0.00
CS112	Premium T8, EB, Reflector	Business Lighting	1,488.73	2,258.59	20	26.43	0.00	1,488.73	0.00	0.00	0.00	0.00
CS122	ROB Premium T8, EB, Reflector	Business Lighting	167.11	920.04	20	26.43	0.00	167.11	0.00	0.00	0.00	0.00
CD111	Premium T8, Electronic Ballast	Business Lighting	1,859.36	3,559.69	20	26.43	0.00	1,859.36	0.00	0.00	0.00	0.00
CD121	ROB Premium T8, 1EB	Business Lighting	373.64	1,091.68	20	26.43	0.00	373.64	0.00	0.00	0.00	0.00
CL111	Premium T8, Electronic Ballast	Business Lighting	1,833.64	3,559.69	20	26.43	0.00	1,833.64	0.00	0.00	0.00	0.00
CL121	ROB Premium T8, 1EB	Business Lighting	364.82	1,091.68	20	26.43	0.00	364.82	0.00	0.00	0.00	0.00
CS111	Premium T8, Electronic Ballast	Business Lighting	1,488.73	3,559.69	20	26.43	0.00	1,488.73	0.00	0.00	0.00	0.00
CS121	ROB Premium T8, 1EB	Business Lighting	338.76	1,091.68	20	26.43	0.00	338.76	0.00	0.00	0.00	0.00
CD153	High Bay T5	Business Lighting	187.96	906.00	13	26.43	0.00	187.96	0.00	0.00	0.00	0.00
CL153	High Bay T5	Business Lighting	179.14	906.00	13	26.43	0.00	179.14	0.00	0.00	0.00	0.00
CS153	High Bay T5	Business Lighting	153.08	906.00	13	26.43	0.00	153.08	0.00	0.00	0.00	0.00
CD161	LED Exit Sign	Business Lighting	104.73	1,422.58	16	26.43	0.00	104.73	0.00	0.00	0.00	0.00
CL161	LED Exit Sign	Business Lighting	95.92	1,422.58	16	26.43	0.00	95.92	0.00	0.00	0.00	0.00

Measure Information			Measure Incentives & Duration			Non-Recurring Measure Expenses (\$/Participant) ⁽¹⁾			Recurring Measure Expenses (\$/Participant) ⁽¹⁾			
Component Measure ID	Component Measure Name	Program Name with Measure	Incentive / Rebate Rate (\$) ⁽¹⁾	Customer Equipment Cost (\$) ⁽²⁾	Estimated Life of Measure	Administrative ⁽²⁾	Equipment	Incentive / Rebate (Typical)	Administrative	Equipment	O&M	Incentive / Rebate (Typical)
CD511	Anti-sweat (humidistat) controls	Business Refrigeration	229.97	1,721.72	12	152.34	0.00	229.97	0.00	0.00	0.00	0.00
CL511	Anti-sweat (humidistat) controls	Business Refrigeration	229.97	1,721.72	12	152.34	0.00	229.97	0.00	0.00	0.00	0.00
CD506	Compressor VSD retrofit	Business Refrigeration	910.35	3,481.11	10	152.34	0.00	910.35	0.00	0.00	0.00	0.00
CL506	Compressor VSD retrofit	Business Refrigeration	910.35	3,481.11	10	152.34	0.00	910.35	0.00	0.00	0.00	0.00
CD509	Demand Hot Gas Defrost	Business Refrigeration	1,377.00	2,015.00	10	152.34	0.00	1,377.00	0.00	0.00	0.00	0.00
CL509	Demand Hot Gas Defrost	Business Refrigeration	1,377.00	2,015.00	10	152.34	0.00	1,377.00	0.00	0.00	0.00	0.00
CS509	Demand Hot Gas Defrost	Business Refrigeration	1,350.00	2,015.00	10	152.34	0.00	1,350.00	0.00	0.00	0.00	0.00
CD513	High R-Value Glass Doors	Business Refrigeration	760.56	2,151.45	10	152.34	0.00	760.56	0.00	0.00	0.00	0.00
CL513	High R-Value Glass Doors	Business Refrigeration	760.56	2,151.45	10	152.34	0.00	760.56	0.00	0.00	0.00	0.00
CS513	High R-Value Glass Doors	Business Refrigeration	317.10	2,151.45	10	152.34	0.00	317.10	0.00	0.00	0.00	0.00
CD504	Evaporator fan controller for MT walk-ins	Business Refrigeration	812.34	2,203.24	5	152.34	0.00	812.34	0.00	0.00	0.00	0.00
CL504	Evaporator fan controller for MT walk-ins	Business Refrigeration	812.34	2,203.24	5	152.34	0.00	812.34	0.00	0.00	0.00	0.00
CD404A	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	843.46	2,262.98	15	88.40	0.00	843.46	0.00	0.00	0.00	0.00
CL404A	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	839.47	2,262.98	15	88.40	0.00	839.47	0.00	0.00	0.00	0.00
CS404A	Electronically Commutated Motors (ECM) on an A	Business Refrigeration	343.26	2,262.98	15	88.40	0.00	343.26	0.00	0.00	0.00	0.00
CD515	Oversized Air Cooled Condenser	Business Refrigeration	346.88	1,737.77	16	152.34	0.00	346.88	0.00	0.00	0.00	0.00
CL515	Oversized Air Cooled Condenser	Business Refrigeration	346.88	1,737.77	16	152.34	0.00	346.88	0.00	0.00	0.00	0.00
CD313	Ceiling Insulation	Business Building Envelope	722.49	1,159.99	20	44.05	0.00	722.49	0.00	0.00	0.00	0.00
CD334	Ceiling Insulation	Business Building Envelope	472.01	909.50	20	44.05	0.00	472.01	0.00	0.00	0.00	0.00
CD349	Ceiling Insulation	Business Building Envelope	289.90	727.40	20	44.05	0.00	289.90	0.00	0.00	0.00	0.00
CL313	Ceiling Insulation	Business Building Envelope	740.27	1,159.99	20	44.05	0.00	740.27	0.00	0.00	0.00	0.00
CL334	Ceiling Insulation	Business Building Envelope	489.79	909.50	20	44.05	0.00	489.79	0.00	0.00	0.00	0.00
CL349	Ceiling Insulation	Business Building Envelope	307.68	727.40	20	44.05	0.00	307.68	0.00	0.00	0.00	0.00
CS313	Ceiling Insulation	Business Building Envelope	741.80	1,159.99	20	44.05	0.00	741.80	0.00	0.00	0.00	0.00
CS334	Ceiling Insulation	Business Building Envelope	491.32	909.50	20	44.05	0.00	491.32	0.00	0.00	0.00	0.00
CS349	Ceiling Insulation	Business Building Envelope	309.21	727.40	20	44.05	0.00	309.21	0.00	0.00	0.00	0.00
CD315	Cool Roof - Chiller	Business Building Envelope	1,467.87	3,028.36	15	44.05	0.00	1,467.87	0.00	0.00	0.00	0.00
CD336	Cool Roof - DX	Business Building Envelope	1,467.87	2,651.29	15	44.05	0.00	1,467.87	0.00	0.00	0.00	0.00
CD351	Cool Roof - DX	Business Building Envelope	1,467.87	2,083.58	15	44.05	0.00	1,467.87	0.00	0.00	0.00	0.00
CL315	Cool Roof - Chiller	Business Building Envelope	1,473.95	3,028.36	15	44.05	0.00	1,473.95	0.00	0.00	0.00	0.00
CL336	Cool Roof - DX	Business Building Envelope	1,473.95	2,651.29	15	44.05	0.00	1,473.95	0.00	0.00	0.00	0.00
CL351	Cool Roof - DX	Business Building Envelope	1,473.95	2,083.58	15	44.05	0.00	1,473.95	0.00	0.00	0.00	0.00
CS315	Cool Roof - Chiller	Business Building Envelope	1,588.88	3,028.36	15	44.05	0.00	1,588.88	0.00	0.00	0.00	0.00
CS336	Cool Roof - DX	Business Building Envelope	1,588.88	2,651.29	15	44.05	0.00	1,588.88	0.00	0.00	0.00	0.00
CS351	Cool Roof - DX	Business Building Envelope	1,588.88	2,083.58	15	44.05	0.00	1,588.88	0.00	0.00	0.00	0.00
CD314	Roof Insulation	Business Building Envelope	984.31	1,465.41	20	44.05	0.00	984.31	0.00	0.00	0.00	0.00
CD335	Roof Insulation	Business Building Envelope	570.02	1,051.12	20	44.05	0.00	570.02	0.00	0.00	0.00	0.00
CD350	Roof Insulation	Business Building Envelope	359.54	840.64	20	44.05	0.00	359.54	0.00	0.00	0.00	0.00
CL314	Roof Insulation	Business Building Envelope	1,041.30	1,465.41	20	44.05	0.00	1,041.30	0.00	0.00	0.00	0.00
CL335	Roof Insulation	Business Building Envelope	627.01	1,051.12	20	44.05	0.00	627.01	0.00	0.00	0.00	0.00
CL350	Roof Insulation	Business Building Envelope	416.53	840.64	20	44.05	0.00	416.53	0.00	0.00	0.00	0.00
CS314	Roof Insulation	Business Building Envelope	934.88	1,465.41	20	44.05	0.00	934.88	0.00	0.00	0.00	0.00
CS335	Roof Insulation	Business Building Envelope	520.59	1,051.12	20	44.05	0.00	520.59	0.00	0.00	0.00	0.00
CS350	Roof Insulation	Business Building Envelope	310.12	840.64	20	44.05	0.00	310.12	0.00	0.00	0.00	0.00
CD311	Window Film (Standard)	Business Building Envelope	1,957.00	2,797.33	10	44.05	0.00	1,957.00	0.00	0.00	0.00	0.00
CD332	Window Film (Standard)	Business Building Envelope	966.21	1,806.82	10	44.05	0.00	966.21	0.00	0.00	0.00	0.00
CD347	Window Film (Standard)	Business Building Envelope	684.29	1,524.91	10	44.05	0.00	684.29	0.00	0.00	0.00	0.00
CL311	Window Film (Standard)	Business Building Envelope	1,995.00	2,797.33	10	44.05	0.00	1,995.00	0.00	0.00	0.00	0.00
CL332	Window Film (Standard)	Business Building Envelope	1,004.84	1,806.82	10	44.05	0.00	1,004.84	0.00	0.00	0.00	0.00
CL347	Window Film (Standard)	Business Building Envelope	722.92	1,524.91	10	44.05	0.00	722.92	0.00	0.00	0.00	0.00
CS311	Window Film (Standard)	Business Building Envelope	1,827.00	2,797.33	10	44.05	0.00	1,827.00	0.00	0.00	0.00	0.00
CS332	Window Film (Standard)	Business Building Envelope	837.00	1,806.82	10	44.05	0.00	837.00	0.00	0.00	0.00	0.00
CS347	Window Film (Standard)	Business Building Envelope	555.00	1,524.91	10	44.05	0.00	555.00	0.00	0.00	0.00	0.00

Measure Information			Measure Incentives & Duration			Non-Recurring Measure Expenses (\$/Participant) ⁽¹⁾			Recurring Measure Expenses (\$/Participant) ⁽¹⁾			
Component Measure ID	Component Measure Name	Program Name with Measure	Incentive / Rebate Rate (\$) ⁽¹⁾	Customer Equipment Cost (\$) ⁽²⁾	Estimated Life of Measure	Administrative ⁽²⁾	Equipment	Incentive / Rebate (Typical)	Administrative	Equipment	O&M	Incentive / Rebate (Typical)
CD603	Heat Pump Water Heater (air source)	Business Water Heating	1,417.10	2,697.06	15	151.15	0.00	1,417.10	0.00	0.00	0.00	0.00
CL603	Heat Pump Water Heater (air source)	Business Water Heating	1,417.10	2,697.06	15	151.15	0.00	1,417.10	0.00	0.00	0.00	0.00
CS603	Heat Pump Water Heater (air source)	Business Water Heating	1,035.14	2,697.06	15	151.15	0.00	1,035.14	0.00	0.00	0.00	0.00
CD608	Heat Recovery Unit	Business Water Heating	2,831.00	3,405.07	16	151.15	0.00	2,831.00	0.00	0.00	0.00	0.00
CL608	Heat Recovery Unit	Business Water Heating	2,831.00	3,405.07	16	151.15	0.00	2,831.00	0.00	0.00	0.00	0.00
CS608	Heat Recovery Unit	Business Water Heating	2,840.00	3,405.07	16	151.15	0.00	2,840.00	0.00	0.00	0.00	0.00
CD306	VFD for Chiller Pumps and Towers	Business Motors	64.15	1,009.49	15	43.38	0.00	64.15	0.00	0.00	0.00	0.00
CL306	VFD for Chiller Pumps and Towers	Business Motors	64.15	1,009.49	15	43.38	0.00	64.15	0.00	0.00	0.00	0.00

(1) Represents per "Participant" values. For Residential measures, 1 participant = 1 customer; For Commercial/Industrial measures, 1 participant = 1 Summer kW
(2) Cost represented in 2009 nominal dollars. For the cost-effectiveness screening analyses, these values were escalated annually.

Staff's First Data Request

Docket: 100155-EG

No. 18 - Revised

Residential Low Income Portfolio Programs & Measures											
Programs	Description of Proposed Modification(s)	Reason for Modification(s)	Measures	Proposed Incentive Modifications (per Participant)		2011 Savings Estimates from Prior Approved DSM Plan (@ generator)			2011 Savings Estimates from Proposed DSM Plan (@ generator)		
				Existing (1)	Proposed	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)
Residential Low Income Weatherization	Maximum incentives increased	Increase Participation	Room Air-Conditioner Replacement	\$25	\$350	0.10	0.03	0.22	0.38	0.00	0.79
			Reduced Air Infiltration	\$60	\$75						
			Air Conditioning Unit Maintenance	\$45	\$190						

Residential Portfolio Programs & Measures											
Programs	Description of Proposed Modification(s)	Reason for Modification(s)	Measures	Proposed Incentive Modifications (per Summer kW)		2011 Savings Estimates from Prior Approved DSM Plan (@ generator)			2011 Savings Estimates from Proposed DSM Plan (@ generator)		
				Existing	Proposed	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)
Residential Home Energy Survey	Program name changed from Residential Conservation Service Program to Residential Home Energy Survey Program	More accurately reflect purpose of program	Field Energy Survey			N/A	N/A	N/A	N/A	N/A	N/A
			On-line Home Energy Survey								
			Phone Energy Survey	N/A	N/A						
Residential Air-Conditioning	Maximum incentives increased	Increase participation to meet increased goals	Straight Cool Air Conditioner	\$1,429	\$1,444	32.17	8.57	62.06	41.61	20.72	78.22
			Heat Pump Air Conditioner	\$1,643	\$1,426						
			Plenum Seal	\$309	\$611						
			Supplemental Unit Sizing Calculation	\$272	\$563						
Residential Duct System Testing and Repair	Maximum incentives increased	Increase participation to meet increased goals	Air-Conditioning Duct System Testing & Repair	\$466	\$905	2.99	3.05	6.01	5.47	6.40	10.27
Residential Building Envelope	Maximum incentives modified & measure added	Increase participation to meet increased goals	Ceiling Insulation	\$1,676	\$1,877	5.76	7.24	13.94	9.08	7.18	19.06
			Reflective Roof Coating	\$1,518	\$1,367						
			Reflective Roof Replacement	\$706	\$773						
			Solar Window Screen	N/A	\$345						
Residential New Construction (BuildSmart®)	Incentives Added	Increase participation to meet increased goals	Exceed Building Code Minimum Efficiency Requirement			8.69	9.81	15.90	5.23	2.37	8.15
			ENERGY STAR® for New Homes	N/A	\$1,286						

Staff's First Data Request

Docket: 100155-EG

No. 18 - Revised

Business Portfolio Programs & Measures											
Programs	Description of Proposed Modification(s)	Reason for Modification(s)	Proposed Incentive Modifications (per Summer kW)			2011 Savings Estimates from Prior Approved DSM Plan (@ generator)			2011 Savings Estimates from Proposed DSM Plan (@ generator)		
			Measures	Existing	Proposed	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)	Summer Demand (MW)	Winter Demand (MW)	Annual Energy (GWh)
Business Heating, Ventilating, & Air-Conditioning	Maximum incentives increased & measure added	Increase participation to meet increased goals	Chillers	\$99	\$574	21.48	11.50	17.19	20.05	21.10	73.83
			Variable Frequency Drives for Chillers	N/A	\$472						
			Demand Control Ventilation (DCV) for HVAC Applications	\$627	\$3,536						
			Demand Control Ventilation (DCV) for Kitchen Hood Applications	\$627	\$2,027						
			Split/Packaged Direct Expansion (DX)	\$168	\$1,100						
			Electronically Commutated Motors (ECM) for DX	\$102	\$808						
			Energy Recovery Ventilation (ERV)	\$417	\$3,323						
			Thermal Energy Storage	\$898	\$720						
Business Lighting	Maximum incentives increased & measure added	Increase participation to meet increased goals	Compact Fluorescent Lamps (CFL)	\$132	\$349	1.78	1.16	8.49	8.64	5.61	29.28
			Pulse Start Metal Halide (PSMH) Lighting	\$132	\$297						
			Premium Linear Fluorescent Lamps with High Efficiency Electronic Ballasts	\$132	\$478						
			Light-Emitting Diode (LED) Exit Signs	N/A	\$101						
			Anti-sweat Heat Controls	\$80	\$230						
Business Refrigeration	Maximum incentives increased & 4 measures added	Increase participation to meet increased goals	Compressor Variable-Frequency Drive (VFD) Retrofit	N/A	\$910	0.33	0.30	2.64	1.36	0.77	10.67
			Hot Gas Reclaim on Freezer Doors	\$80	\$1,374						
			Special Doors with Low or No Anti-sweat Heat	\$80	\$754						
			Evaporator Fan Controller for Medium - Temperature Walk-in Coolers	N/A	\$812						
			Electronically Commutated Motors (ECM)	N/A	\$808						
			Oversized Air-Cooled Condensers	N/A	\$347						
Business Building Envelope	Maximum incentives increased	Increase participation to meet increased goals	Ceiling Insulation	\$185	\$527	10.02	0.06	19.84	16.51	1.47	32.97
			Reflective Roofing	\$579	\$1,487						
			Roof Insulation	\$219	\$641						
			Window Treatment	\$429	\$979						
Business Water Heating	Maximum incentives increased	Increase participation to meet increased goals	Heat Pump Water Heater	\$881	\$1,413	0.22	0.25	2.17	0.58	0.36	4.13
			Heat Recovery Unit	\$881	\$2,832						