Loveless, Berkeley

From: Aguirre, Mark A.
Sent: Friday, September 29, 2006 2:34 PM
To: Besa, Athena
Cc: Rubin, Rob; Loveless, Berkeley; Montes, Hector
Subject: FW: BEEP Program changes: Calculating Boilers & adding Food Service measures

Athena, per our phone conversation. Here are the two program changes that have gone through the necessary approvals. The Program Manager has been working with Rob & Lee on the Program Builder aspect of this. All that is left is that Rob or Lee upload the scenario into Program Builder.

Please let me know when I can give the Program Manager the green light to implement these new measures -- if we can do it this afternoon that would be great. There is an urgency because the field has been ready to move on these but implementation was somewhat delayed due to the Incentive Mechanism filing.

Thanks and have a great weekend.

-- Mark

From: Ytuarte, Andrew
Sent: Friday, September 29, 2006 12:19 PM
To: Aguirre, Mark A.; Kirchhoff, Eric
Cc: Decarlo, Tom; Hobbs, Rick; Anderson, Mary
Subject: BEEP Program changes: Calculating Boilers & adding Food Service measures

Mark,
Here are two program changes for the BEEP program. The first write -up explains the need to calculate boilers over 2,000 Mbtu in the BEEP program versus Express. The second introduces two new measures - large vat fryers and rack ovens - into the Efficient Equipment Rebate program (Commercial Food Service Program). As requested, I am including the two workpapers for the large vat fryers and rack ovens.

Write -up Calculating Boilers:

Boiler Program Changes (BEEP)....

Write-up adding Large Vat Fryers & Rack Ovens to the Commercial Food Service Equipment Rebate Program:

=C Program Change
(Lrg Vat_Rac...

Measure workpapers:

Large-Vat Fryers
and Rack Oven...

Program Builder has been updated for 2006 - 2008 creating a scenario that incorporates the boilers and the new measures. Scenario name:

2006, 2007 & 2008 Local Business Energy Efficiency Program (Com) - Boiler / Food Service (LV_Rack) Addition

Eric,
The checklist indicates the need for an email approval from you. Can you forward this email to all with that approval.

Thank you,
Andy Ytuarte
Energy Programs Advisor
The Gas Company
ML GT28A4
213.244.3880
AYtuarte@semprautilities.com

FOOD SERVICE EQUIPMENT WORKPAPERS
Gas Equipment

MEASURE 6: LARGE VAT FRYERS-COMMERCIAL-GAS

Measure Description

Commercial fryers are among the most common pieces of cooking equipment in commercial food service facilities. Recent advances in equipment design have produced fryers that operate more efficiently, quickly, safely and conveniently. Energy efficient commercial gas fryers reduce energy consumption primarily through advanced burner and heat exchanger design.

Large vat fryers, also known as fish & chicken fryers, have frypots ranging from 18 x 14 inches to 34 x 34 inches. The most common of these larger vat sizes is the 18-inch wide fryer. Large vat fryers are becoming more common in restaurants as they replace smaller (14-inch) fryers to increase production capability while maximizing the available space in the kitchen. This category has historically been driven by the lowest first cost and, until recently, has traditionally not employed energy-efficient technologies. This measure is focused on 18-inch and larger open deep fat gas fryers with a nominal shortening capacity greater 50 pounds.

Large vat fryer performance is determined by applying the ASTM *Standard Test Method for the Performance of Large Vat Fryers* (F2144-05). [1] The ASTM standard test method is considered to be the industry standard for quantifying the efficiency and performance of large vat fryers.

Market Applicability

This measure is applicable to any small commercial cooking application. Includes (but not limited to) casual dining and quick service restaurants, hotels, motels, schools, colleges and recreational facilities.

Terms and Conditions

This incentive applies towards the purchase of new or replacement energy efficient commercial gas large vat fryers (fuel switching applications are not eligible). Used or rebuilt equipment is not eligible. Multi-vat configurations are allowed, with the incentive applied for each vat purchased. Customers must provide proof that the appliance meets the energy efficiency specifications listed in Table 6.1.

Table 6.1. Energy Efficiency Requirements for Open Commercial Gas Large Vat Fryers.

Test Description	Cooking Energy Efficiency
Heavy Load French Fry Cooking-Energy Efficiency ASTM F2144-05	≥ 50%

Cost Effectiveness Modeling Measure Data

High efficiency large vat gas fryers typically list for more than standard-efficiency large vat gas fryers. However, high-efficiency designs are often bundled with other features such as all-stainless steel construction and high-quality components and controls. In addition to lower operating costs, high-efficiency fryers exhibit higher production rates and shorter recovery times than base-model fryers.

Measure data for cost effectiveness modeling have been developed based on average equipment characteristics for California utility customer participants for the Food Service Equipment program. Unitized cost effectiveness determinants are summarized in Table 6.2. Annual energy use was calculated based on preheat, idle, and cooking-energy efficiency and production capacity test results from applying ASTM F2144-05. Annual energy use in this example is based on the fryer operating for

[1] American Society for Testing and Materials. *Standard Test Method for the Performance of Large Vat Fryers.* ASTM Designation F 2144-05, in *Annual Book of ASTM Standards*, West Conshohocken, PA.

12 hours a day, 365 days per year, with one preheat daily and cooking 150 pounds per day of food. The assumed gas price is $1.00 per therm.

Table 6.2. Gas Large Vat Fryer Cost-Effectiveness.

Performance	Base Model	Energy Efficient Model
Preheat Time (min)	15	15
Preheat Energy (Btu)	21,000	16,500
Idle Energy Rate (Btu/hr)	20,000	12,000
Cooking-Energy Efficiency (%)	35%	50%
Production Capacity (lb/hr)	100	110
Operating Hours/Day [a]	12	12
Operating Days/Year [a]	365	365
Pounds of Food Cooked per Day [a]	150	150
Gas Cost ($/therm)	$1.00	$1.00
ASTM Energy to Food (Btu/lb)	570	570
Daily Energy Consumption (Btu)	470,411	312,055
Annual Energy Consumption (therms) [b]	1,717	1,139
Estimated Energy Savings (therms/yr)	-	578
Annual Energy Cost ($)	$1,717	$1,139
Estimated Cost Savings ($/yr)	-	$578
Incremental Measure Cost [c]	-	SEE APPENDIX A
Estimated Useful Life (EUL) [d]	12 years	12 years

[a] Operating estimates based on the procedure for calculating daily energy consumption of an open deep fat fryer based on reported test results, Appendix X2 in ASTM F2144-05.
[b] 1 therm = 100,000 Btu.
[c] Incremental measure cost was determined through communications with local manufacturers and distributors to determine the retail cost to purchase a qualifying model over the baseline standard.
[d] The estimated useful life is based on DEER estimates for food service equipment and filed in the Energy Efficiency Policy Manual Table 4.1.

Daily Energy Consumption Calculation and Definitions

$$EDAY = LBFOOD \times EFOOD \div EFFICIENCY + IDLERATE \times (TON - LBFOOD/PC - TP/60) + EP$$

Where:

EDAY =	Daily Energy Consumption (BTU/day)
LBFOOD =	Pounds of Food Cooked per Day (lbs/day)
EFOOD =	ASTM Energy to Food (BTU/lb--BTU/pound of energy absorbed by food product during cooking)
EFFICIENCY =	Heavy Load Cooking Energy Efficiency %
IDLE RATE =	Idle Energy Rate (BTU/hr)
TON =	Operating Hours/Day (hr/day)
PC =	Production Capacity (lbs/hr)
TP =	Preheat Time (min/day)
EP =	Preheat Energy (BTU/day)

.

Figure 6.1 shows the range of operating hours for 25,886 rack ovens, based on end user interviews. Through the collective experience and the data results, it seems reasonable to assume that they may typically operate for 12 hours/day, 365 days/year. To account for the uncertainty of this claim, the production rate (presented as “Pounds of Food Cooked per Day”) was de-rated to 150 lbs/day.

The data in Figure 6.1 was based approximately 1,821 participants from the following market segments:

1. Chain accounts with restaurants NAICS code (not including drinking establishments),
2. Nonchain accounts with restaurant NAICS code,
3. Universities (by NAICS code), and
4. Other than above.

Of these four segments, the historic program participation rate has been 58.0% chain restaurants, 14.1% non-chain restaurants, 1.5% Universities, and 26.3% other, respectively.

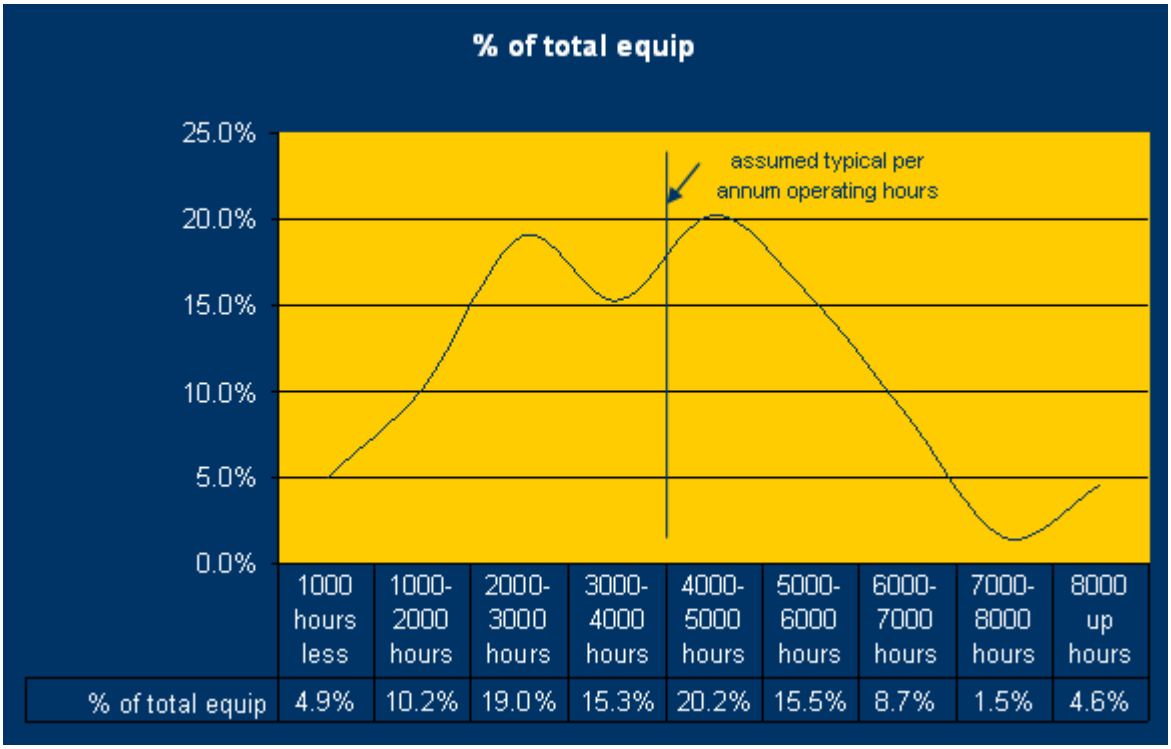


Figure 6.1 Large Vat Fryer Operating Hours

FOOD SERVICE EQUIPMENT WORKPAPERS

Gas Equipment

Large Vat Fryers-Commercial-Gas

APPENDIX A

Make Energy Efficient	Model	Fuel Source	Cost($)*
Dean	HD60G	Gas	7,224
Ultrafryer	F-P30-18	Gas	8,719
Pitco	SGM24	Gas	8,852
Average Cost of Energy Efficient Fryer -Gas			**$8,265**

Make Energy Baseline	Model	Fuel Source	Cost($)*
Anetsberger	18E	Gas	5,196
Dean	SM60G	Gas	4,808
Vulcan	GR65	Gas	5,426
Average Cost of Baseline Model Fryer - Gas			**$5,143**

List Price Average Incremental Cost Difference	**$3,122**
*Costs taken from published manufacturer list prices	

MEASURE 7: RACK OVEN-COMMERCIAL-GAS

Measure Description

Commercial convection ovens are the most widely used appliances in the food service industry. Many food service operations rely heavily on the versatility of ovens. Operators can cook varieties of foods in large quantities with a single appliance. An oven can be simply described as a fully enclosed, insulated chamber used to heat food. With competition rising among equipment manufacturers, new designs that incorporate timesaving features via sophisticated control packages are being introduced.

Rack ovens offer high volume production and even baking in a relatively compact footprint. A single rack oven typically accommodates 15 pans of product at a time, effectively replacing three full-size convection ovens. These large capacity ovens fill the requirements of high-volume retail and baking operations. They are also ideal for rethermalizing many products pre-pared in cook/chill systems as well as baking and roasting. The rack oven is capable of producing thousands of identical products or many diverse menu items within the same cooking cavity.

Rack oven performance is determined by applying the ASTM *Standard Test Method for the Performance of Rack Ovens* (F2093). [2] The ASTM standard test method is considered to be the industry standard for quantifying the efficiency and performance of rack ovens. This measure is focused on standard single and double-rack gas-fired rack ovens.

Market Applicability

This measure is applicable to any commercial cooking application. Includes (but not limited to) casual dining and quick service restaurants, hotels, motels, grocery stores, schools, colleges and recreational facilities.

Terms and Conditions

This incentive applies towards the purchase of new or replacement energy efficient commercial gas rack ovens (fuel switching applications are not eligible). Customers must provide proof that the appliance meets the energy efficiency specifications listed in Table 7.1.

Table 7.1. Energy Efficiency Requirements for Gas Rack Ovens.

Test Description	Cooking Energy Efficiency
Heavy Load Baking-Energy Efficiency ASTM F2093	≥ 50%

Cost Effectiveness Modeling Measure Data

Compared to standard models, a high-efficiency gas rack oven could save 30 million Btu annually. High efficiency gas rack ovens typically list for more than standard-efficiency gas rack ovens. However, high-efficiency designs are often bundled with other features such as all-stainless steel construction and high-quality components and controls. In addition to lower operating costs, high-efficiency rack ovens frequently exhibit better baking uniformity and higher production capacities.

Measure data for cost effectiveness modeling have been developed based on average equipment characteristics for California utility customer participants for the Food Service Equipment program. Unitized cost effectiveness determinants are summarized in Table 7.2 and 7.3 Annual energy use

[2] American Society for Testing and Materials. 1999. *Standard Test Method for the Performance of Convection Ovens.* ASTM Designation F 1496-99, in *Annual Book of ASTM Standards,* West Conshohocken, PA.

was calculated based on preheat, idle, and baking-energy efficiency and production capacity test results from applying ASTM F2093. Annual energy use in this example is based on the oven operating for 12 hours a day, 365 days per year, with one preheat daily and baking 1200 pounds per day of food. The assumed gas price is $1.00 per therm.

Table 7.2 Double Compartment Gas Rack Oven Cost-Effectiveness

Performance	Base Model	Energy Efficient Model
Preheat Time (min)	20	20
Preheat Energy (Btu)	100,000	85,000
Idle Energy Rate (Btu/h)	65,000	35,000
Baking-Energy Efficiency (%)	30%	50%
Production Capacity (lb/h)	250	280
Operating Hours/Day [a]	12	12
Operating Days/Year [a]	365	365
Pounds of Food Cooked per Day [a]	1,200	1,200
Gas Cost ($/therm)	$1.00	$1.00
ASTM Energy to Food (Btu/lb)	235	235
Daily Energy Consumption (Btu)	1,480,800	904,400
Annual Energy Consumption (therms) [b]	5,405	3,301
Estimated Energy Savings (therms/yr)	-	2,104
Annual Energy Cost ($)	$5,405	$3,301
Estimated Cost Savings ($/yr)	-	$2,104
Incremental Measure Cost [c]	-	SEE APPENDIX A
Estimated Useful Life (EUL) [d]	12 years	12 years

[a] Operating estimates based on the procedure for calculating daily energy consumption of a rack oven based on reported test results, Appendix X3 in ASTM 2093.
[b] 1 therm = 100,000 Btu.
[c] Incremental measure cost was determined through communications with local manufacturers and distributors to determine the retail cost to purchase a qualifying model over the baseline standard.
[d] The estimated useful life is based on DEER estimates for food service equipment and filed in the Energy Efficiency Policy Manual Table 4.1.

Table 7.2.2 Single Compartment Gas Rack Oven Cost-Effectiveness Example

Performance	Base Model	Energy Efficient Model
Preheat Time (min)	20	20
Preheat Energy (Btu)	50,000	44,000
Idle Energy Rate (Btu/h)	43,000	29,000
Baking-Energy Efficiency (%)	30%	50%
Production Capacity (lb/h)	130	140
Operating Hours/Day [a]	12	12
Operating Days/Year [a]	365	365
Pounds of Food Cooked per Day [a]	600	600
Gas Cost ($/therm)	$1.00	$1.00
ASTM Energy to Food (Btu/lb)	235	235
Daily Energy Consumption (Btu)	823,290	540,000
Annual Energy Consumption (therms) [b]	3,005	1,971
Estimated Energy Savings (therms/yr)	-	1,034
Annual Energy Cost ($)	$3,005	$1,971
Estimated Cost Savings ($/yr)	-	$1,034
Incremental Measure Cost [c]	-	SEE APPENDIX A
Estimated Useful Life (EUL) [d]	12 years	12 years

[a] Operating estimates based on the procedure for calculating daily energy consumption of a rack oven based on reported test results, Appendix X3 in ASTM 2093.
[b] 1 therm = 100,000 Btu.
[c] Incremental measure cost was determined through communications with local manufacturers and distributors to determine the retail cost to purchase a qualifying model over the baseline standard.
[d] The estimated useful life is based on DEER estimates for food service equipment and filed in the Energy Efficiency Policy Manual Table 4.1.

Daily Energy Consumption Calculation and Definitions

EDAY = LBFOOD x EFOOD ÷ EFFICIENCY + IDLERATE x (TON - LBFOOD/PC – TP/60) + EP

Where:

EDAY =	Daily Energy Consumption (BTU/day)
LBFOOD =	Pounds of Food Cooked per Day (lbs/day)
EFOOD =	ASTM Energy to Food (BTU/lb--BTU/pound of energy absorbed by food product during baking)
EFFICIENCY =	Heavy Load Baking Energy Efficiency %
IDLE RATE =	Idle Energy Rate (BTU/hr)
TON =	Operating Hours/Day (hr/day)
PC =	Production Capacity (lbs/hr)
TP =	Preheat Time (min/day)
EP =	Preheat Energy (BTU/day)

Figure 7.1 shows the range of operating hours for 308 rack ovens, based on end user interviews. Through the collective experience and the data results, it seems reasonable to assume that they may typically operate for 12 hours/day, 365 days/year. To account for the uncertainty of this claim, the production rate (presented as “Pounds of Food Cooked per Day”) was de-rated to 1200 lbs/day for a double-rack oven and 600 lbs/day for a single rack oven.

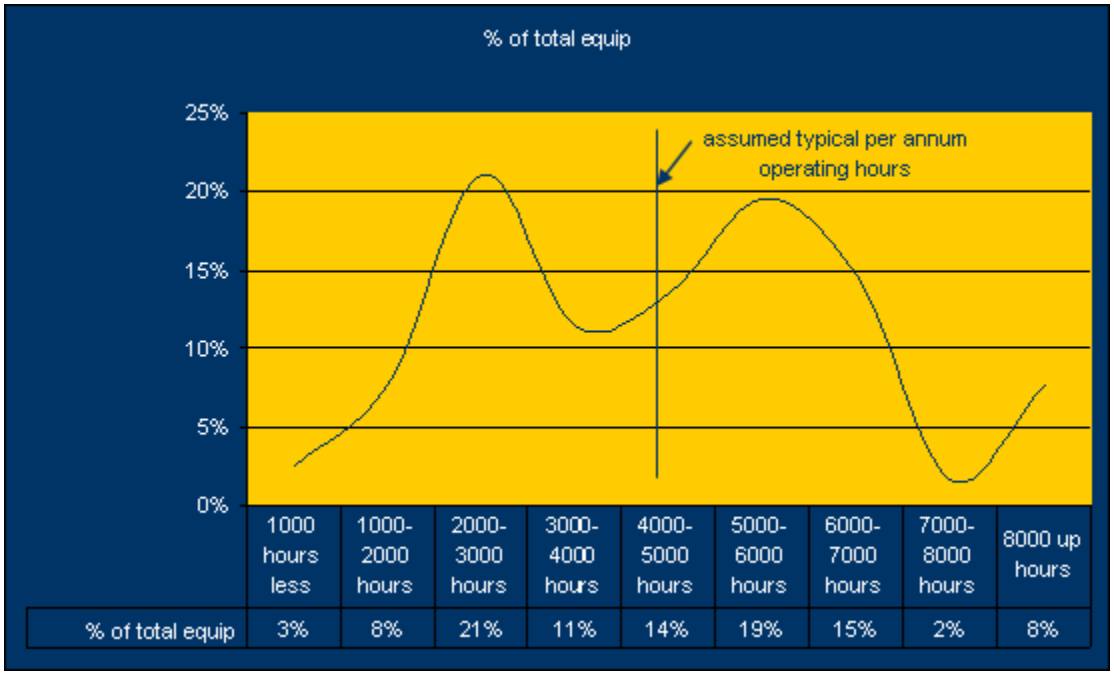


Figure 7.1 Rack Oven Operating Hours

FOOD SERVICE EQUIPMENT WORKPAPERS

Gas Equipment

Rack Oven-Commercial-Gas

APPENDIX A

Make Energy Efficient	Model	Size	Fuel Source	Cost ($)*
Baxter	BXA1G	Single	Gas	30,974
Baxter	BXA2G	Double	Gas	39,212
Revent	726	Single	Gas	24,735
Revent	724	Double	Gas	29,585
Gemini	V42	Double	Gas	31,200
Average Cost of Energy Efficient Single Rack Oven				**$27,855**
Average Cost of Energy Efficient Double Rack Oven				**$33,332**

Make Baseline	Model	Size	Fuel Source	Cost ($)*
Fish	SR200G	Single	Gas	18,792
Fish	DR400G	Double	Gas	23,436
Lang Bakery Equipment	LRO-1G	Single	Gas	20,475
Lang Bakery Equipment	LRO-2G	Double	Gas	25,935
Average Cost of Baseline Model Single Rack Oven				**$19,634**
Average Cost of Baseline Model Double Rack Oven				**$24,686**

Single Rack Oven List Price Average Incremental Cost Difference	**$8,221**
Double rack Oven List Price Average Incremental Cost Difference	**$8,646**
*Costs taken from published manufacturer list prices	

SCG C&I Energy Efficiency Program Changes

Adding Large Vat Fryers and Rack Ovens to the SCG Efficient Equipment Program

The So Cal Gas (SCG) Efficient Equipment Rebate program (Commercial Food Service Equipment program - CFSE), a program within the Local Business Energy Efficiency Program (BEEP), was designed to meet the needs of small to medium sized Food Service establishments. At the time of the 2006-08 Energy Efficiency filings, SCG and the rest of the statewide IOUs indicated the Commercial Food Service Equipment programs in each of the IOUs Local programs were being brought under more uniformed standards.

To move in this direction, natural gas and electric food service equipment was to be tested across the state to ensure uniformity. As such, the number of pieces of equipment in the program has grown throughout 2006 for each of the five measures initially incented - combination ovens, convection ovens, fryers, griddles and steamers.

Also proposed at the time of the 2006-08 filings, new measures would be added to the Commercial Food Service program as soon as additional testing was completed. Two new measures have now been tested and the proper documentation has been prepared. SCG purposes to add Large Vat Fryers and Rack Ovens (Single & Double) to the SCG portfolio of food service equipment. By so doing, SCG and the other IOUs anticipate capturing additional therm savings in the food service industry. As this industry makes up a large portion of the energy usage throughout the state, ratepayers will also receive a benefit in the form of reduced natural gas usage with additional tested energy efficient equipment on the market. The effective date of this implementation will correspond to the date of the accepted workpapers.

C/I Customer Programs Supervisor — Date 9/28/06

Engineer (along w/e-mail approval) — Date 9/28/6

C/I Customer Programs Manager — Date 9/28/06

Regulatory Advisor

Date Approved 9-29-06

Requested Implementation Date 08/01/2006

When completed this form should be routed to:

SCG C&I Energy Efficiency Program Changes

☐ Summary Sheet

Calculating Boilers and Large Instantaneous Water Heaters

SoCalGas has traditionally provided retrofit boiler and large instantaneous water heater replacements as part of the Express Efficiency rebate program to assist smaller commercial customers complete energy efficiency upgrades in the easiest possible manner. Well over ninety percent of the boilers submitted in the past program years have fallen into the below 2,000 Mbtu range. With the opening of Energy Efficiency programs to larger markets (non-core), the use of boilers and large instantaneous water heaters in strictly a rebate program is no longer deemed feasible. Larger industrial customers have specialized needs and tend to operate their equipment for longer periods of the business day. The varying hours of operation and load capabilities of the equipment in these larger facilities warrant a more localized approach to each customer's unique equipment needs.

For this reason, SCG C&I Market and Technical staff evaluated the calculation of boilers and large instantaneous water heaters and determined it would be more beneficial to the SCG customers and ratepayers to allow boilers and large instantaneous water heaters over 2,000 Mbtu to be calculated in the Local Business Energy Efficiency Program (BEEP). The larger SCG customers will benefit in the form of more cost effective dollars paid under this program to assist in the much higher costs of these larger boilers and large instantaneous water heaters. Calculations made on the larger boilers and large instantaneous water heaters will better capture the true operating times and load factors of these larger customers. Additionally, as the Local program in the SCG territory has proven to be very cost effective in previous program years, ratepayers will receive a benefit in the more accurately calculated savings from this cost effective program. It is the Customer Programs intention to implement the calculation of boilers and large instantaneous water heaters over 2,000 Mbtu as a pilot program beginning in the second half of the 2006 program cycle.

C/I Customer Programs Supervisor	9/28/06 Date
Engineer (along w/e-mail approval)	9/29/6 Date
C/I Customer Programs Manager	9/26/06 Date

Regulatory Advisor 

Date Approved 9-29-06

Requested Implementation Date **July 1, 2006**

When completed this form should be routed to:

Loveless, Berkeley

From: Kirchhoff, Eric
Sent: Friday, July 28, 2006 7:44 PM
To: 'dzabrowski@fishnick.com'
Cc: Ytuarte, Andrew; Anderson, Richard R.; Marks, Melisa
Subject: RE: new work papers

David,
I accept these two workpapers as presented. Note I renamed the file (for my electronic filing purposes), but I did not make any revisions to the one you sent earlier.
Eric

-----Original Message-----
From: David Zabrowski [mailto:dzabrowski@fishnick.com]
Sent: Friday, July 28, 2006 4:34 PM
To: Kirchhoff, Eric
Subject: RE: new work papers

Eric,

Here are the updated gas measure work papers with the graphs and recommended text that you had provided. I kept the operating hours for the large vat fryers at 12 hours to keep the energy savings on par with the small vat fryers. I think that the majority of the restaurants likely to purchase a higher-cost energy-efficient large vat fryer will tend to have longer hours of operation.

Let's plan to chat on Monday.

Have a good weekend!
--David

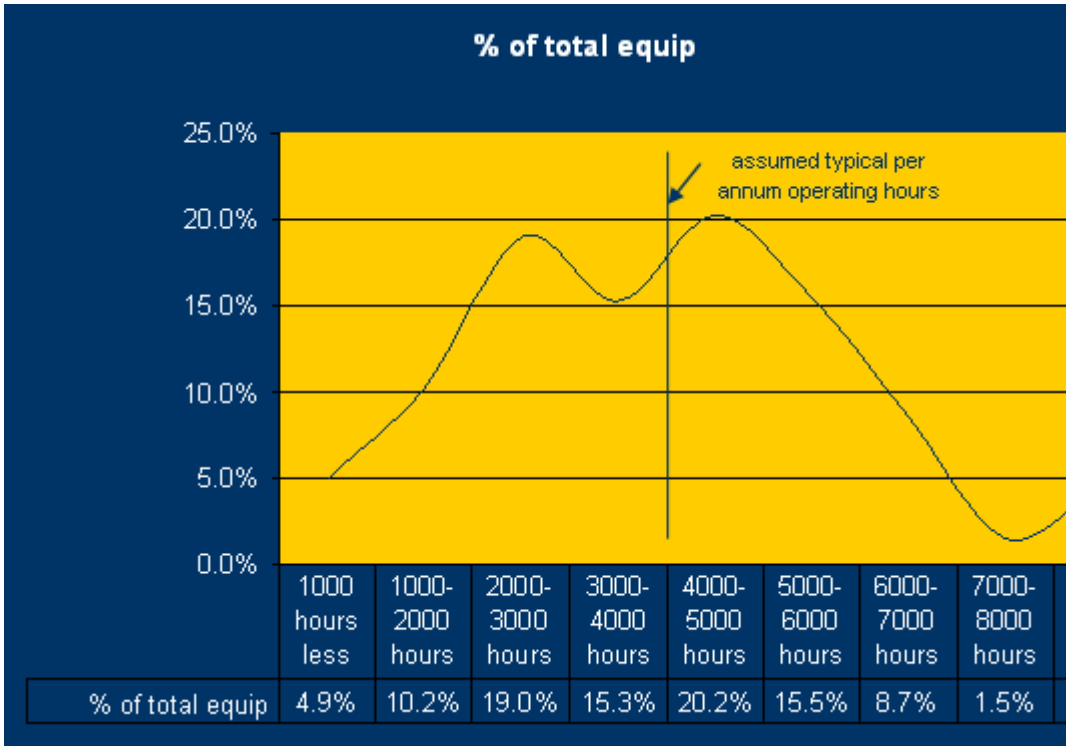
-----Original Message-----
From: Kirchhoff, Eric [mailto:EKirchhoff@semprautilities.com]
Sent: Friday, July 28, 2006 2:07 PM
To: dzabrowski@fishnick.com
Subject: RE: new work papers

FYI, I just learned that the number of program participants was 1,821.

-----Original Message-----
From: Kirchhoff, Eric
Sent: Friday, July 28, 2006 10:33 AM
To: 'dzabrowski@fishnick.com'
Subject: RE: new work papers

David,
Here is the workpaper with a couple of revisions and comments I collected from Melisa (I asked Melisa, Jill, and Maria).

I finally got the remaining information this morning regarding the fryer, here it is:



The average annual hours of operation closely works out to 11 hours/day and 365 days/year.
The number of units used to develop this graph is 25,886. The evaluation includes dividing the market into four segments:
1. Chain accounts with restaurants NAICS code (not including drinking establishments),
2. Nonchain accounts with restaurant NAICS code,
3. Universities (by NAICS code), and
4. Other than above.
Of these four segments, the historic program participation rate has been 58.0%, 14.1%, 1.5%, and 26.3% respectively.

Even though there is a double hump (usually a means for calling it statistically invalid), I believe since the variance is only 5%, we can accept the average from these results. If we are not so comfortable with this, we can always reemphasize it as we did for the Rack Ovens by referencing “experts from within the three IOUs” as anecdotal reaffirmation.

If we go the “valid results” route, then you can simply refer to graph and include a narrative outlining the data source as I did above.

Eric

-----Original Message-----
From: David Zabrowski [mailto:dzabrowski@fishnick.com]
Sent: Wednesday, July 26, 2006 5:34 PM
To: Kirchhoff, Eric
Subject: RE: new work papers

Thanks Eric. Here is the corrected version.

-----Original Message-----
From: Kirchhoff, Eric [mailto:EKirchhoff@semprautilities.com]

Sent: Wednesday, July 26, 2006 5:07 PM
To: dzabrowski@fishnick.com
Subject: RE: new work papers

Yes, but they were not monitored. These are the estimates our Account Executives input into our database, based on client interviews. Also, the text you use says this data is inconclusive and it indicates. This is contradictory. I thought it sounded better by saying that through the collective experience and the data results, it seems reasonable to use or assume 12 hrs/day and 265 days/year.

Hope this helps,
Eric

-----Original Message-----
From: David Zabrowski [mailto:dzabrowski@fishnick.com]
Sent: Wednesday, July 26, 2006 5:01 PM
To: Kirchhoff, Eric
Subject: RE: new work papers

That's pretty comprehensive. I added that number to this version of the new gas measure working papers.

-----Original Message-----
From: Kirchhoff, Eric [mailto:EKirchhoff@semprautilities.com]
Sent: Wednesday, July 26, 2006 4:39 PM
To: dzabrowski@fishnick.com
Subject: RE: new work papers

308 Rack Ovens are represented.

-----Original Message-----
From: David Zabrowski [mailto:dzabrowski@fishnick.com]
Sent: Wednesday, July 26, 2006 3:34 PM
To: Kirchhoff, Eric
Subject: RE: new work papers

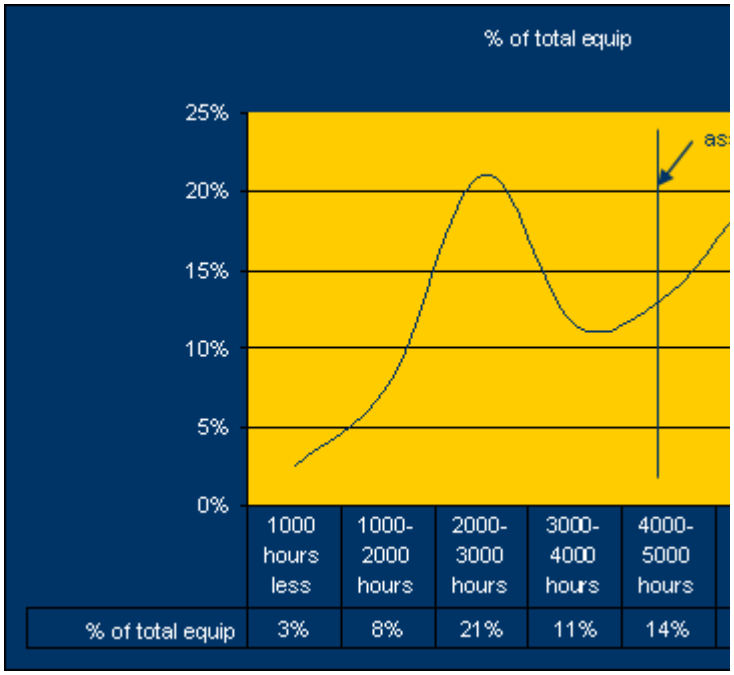
Eric,

Attached is a revised draft with the rack oven operating hour chart and disclaimer. Do you know approximately how many rack ovens are represented in this chart?

--David Zabrowski

-----Original Message-----
From: Kirchhoff, Eric [mailto:EKirchhoff@semprautilities.com]
Sent: Tuesday, July 25, 2006 5:07 PM
To: dzabrowski@fishnick.com
Subject: RE: new work papers

The rack oven data is inconclusive (see following table):



I suggest we simply include a statement in the workpaper (regarding the hours of operation) similar to the following:

"The data obtained for the typical operating hours for a rack oven were statistically inconclusive. However, through anecdotal means as well as a comparison to the data that was evaluated indicates with some assurance that they may typically operate for 12 hours/day for 365 days/year. To account for the uncertainty of this claim, the production rate (presented as "Pounds of Food Cooked per Day") was derated to 1200 lbs/day."

I have a decent set of data for the fryers, however I am still waiting for the market distribution data to compile the results. I should have this within a days time (I hope).

Please feel free to use this graph and statement above,

Eric Kirchhoff

-----Original Message-----
From: David Zabrowski [mailto:dzabrowski@fishnick.com]
Sent: Tuesday, July 25, 2006 2:48 PM
To: Kirchhoff, Eric
Subject: new work papers

Eric,

I am following up on the draft work papers for the large vat fryer and rack oven that I had sent to you earlier this month. During our last discussion, you were concerned about documenting the assumptions used for the cost effectiveness calculations. Are we any closer to adding these items to the program? We were hoping to have them in place for the

Western Foodservice and Hospitality Expo at the end of August. This will be a good forum for announcing the new measures and allow us to take advantage of our current marketing plans for the show to promote the new measures (and hopefully influence purchases). Please give me an update when you get a chance.

Thanks,

--David Zabrowski
Food Service Technology Center

Change in Forecasted Units

CYCLE_START_YR	FILING_MSR_NBR	FILING_MSR_DESC	Forecasted Units in Feb 1st Filing	Revised Forecasted Units	Change in Forecasted Units
2006	314001	EER Convection Oven	248.00	175.00	(73.00)
2006	314003	EER Griddle	88.00	40.00	(48.00)
2006	314006	EER Fryer - High Effic. Unit	138.00	80.00	(58.00)
2006	314012	PER Misc. Process Equip. Replacement	1,221,586.20	1,101,666.00	(119,920.20)
2006	314015	PER Pump Rebuild/Replacement	80,000.00	61,580.00	(18,420.00)
2006	314016	EER Combination Oven	27.00	51.00	24.00
2006	314023	EER Cabinet Steamer Tier I	20.00	10.00	(10.00)
2006	314044	Efficiency Improvement Recognition	74,262.50	69,952.00	(4,310.50)
2006	314045	Equipment Replacement Recognition (SPC Equivalent Measure)	97,814.00	87,741.00	(10,073.00)
2007	314001	EER Convection Oven	300.00	190.00	(110.00)
2007	314003	EER Griddle	100.00	125.00	25.00
2007	314006	EER Fryer - High Effic. Unit	150.00	90.00	(60.00)
2007	314012	PER Misc. Process Equip. Replacement	1,458,100.00	1,333,100.00	(125,000.00)
2007	314014	PER Engine Rebuild/Replacement	100,000.00	70,217.00	(29,783.00)
2007	314015	PER Pump Rebuild/Replacement	80,000.00	45,319.00	(34,681.00)
2007	314042	Grant (SPC Equivalent Measure)	2,472,046.50	2,472,047.00	0.50
2007	314044	Efficiency Improvement Recognition	197,675.00	178,745.00	(18,930.00)
2007	314045	Equipment Replacement Recognition (SPC Equivalent Measure)	173,525.00	165,542.00	(7,983.00)
2008	314001	EER Convection Oven	350.00	220.00	(130.00)
2008	314003	EER Griddle	150.00	137.00	(13.00)
2008	314012	PER Misc. Process Equip. Replacement	1,825,000.00	1,675,000.00	(150,000.00)
2008	314014	PER Engine Rebuild/Replacement	125,000.00	80,500.00	(44,500.00)
2008	314015	PER Pump Rebuild/Replacement	100,000.00	60,000.00	(40,000.00)
2008	314023	EER Cabinet Steamer Tier I	50.00	40.00	(10.00)
2008	314042	Grant (SPC Equivalent Measure)	2,700,000.00	2,712,000.00	12,000.00
2008	314044	Efficiency Improvement Recognition	224,458.75	206,114.00	(18,344.75)
2008	314045	Equipment Replacement Recognition (SPC Equivalent Measure)	280,875.00	265,125.00	(15,750.00)

No change in measure savings.

New Measures

	A	B	C	D	E	F	G	H
1	CYCLE_START_YR	FILING_MSR_NBR	FILING_MSR_DESC	UTILITY_ID	PGM_CD	SECTOR_CD	BLDG_TYP	FORM_CD
2	2006	314047	EER Large Vat Fryers	SOCALGAS	NRF4			
3	2006	314048	EER Single Rack Oven	SOCALGAS	NRF4			
4	2006	314049	EER Double Rack Oven	SOCALGAS	NRF4			
5	2006	314050	PER Boiler Replacement	SOCALGAS	NRF4			
6	2007	314047	EER Large Vat Fryers	SOCALGAS	NRF4			
7	2007	314048	EER Single Rack Oven	SOCALGAS	NRF4			
8	2007	314049	EER Double Rack Oven	SOCALGAS	NRF4			
9	2007	314050	PER Boiler Replacement	SOCALGAS	NRF4			
10	2008	314047	EER Large Vat Fryers	SOCALGAS	NRF4			
11	2008	314048	EER Single Rack Oven	SOCALGAS	NRF4			
12	2008	314049	EER Double Rack Oven	SOCALGAS	NRF4			
13	2008	314050	PER Boiler Replacement	SOCALGAS	NRF4			

New Measures

	I	J	K	L	M	N	O	P	Q	R
1	GR_SV_KWH	GR_SV_THERM	GR_SV_KW	GR_SV_KW_NC	NT_TO_GRS	PGM_TYP_CD	EIMPACT	GIMPACT	PIMPACT	ECIMPACT
2	0	578	0		1					
3	0	1034	0		1					
4	0	2104	0		1					
5	0	1	0		1					
6	0	578	0		1					
7	0	1034	0		1					
8	0	2104	0		1					
9	0	1	0		0.8					
10	0	578	0		1					
11	0	1034	0		1					
12	0	2104	0		1					
13	0	1	0		0.8					

New Measures

	S	T	U	V	W	X	Y	Z	AA
1	GCIMPACT	PCIMPACT	SVGS_TYP_FLG	SVGS_MEMO	END_USE	AR_END_USE	NEW_SZ_TYP	MSR_LF	FRCST_UNITS
2			N			Misc	Unit	12	30
3			N			Misc	Unit	12	30
4			N			Misc	Unit	12	20
5			N			Misc	Therm	20	100000
6			N			Misc	Unit	12	74
7			N			Misc	Unit	12	40
8			N			Misc	Unit	12	25
9			N			Misc	Therm	20	124999
10			N			Misc	Unit	12	75
11			N			Misc	Unit	12	50
12			N			Misc	Unit	12	25
13			N			Misc	Therm	20	152000

New Measures

	AB	AC	AD	AE	AF	AG	AH	AI
1	GENERAL_MEMO	MSR_INCNTV	CUST_CST	CUST_CST_MEMO	EQUIPCOST	EQUIPCOST_FLG	LABORCOST	LABORCOST_FLG
2		$500.00	$3,122.00					
3		$1,000.00	$8,221.00					
4		$2,000.00	$8,646.00					
5		$0.65	$2.44					
6		$500.00	$3,122.00					
7		$1,000.00	$8,221.00					
8		$2,000.00	$8,646.00					
9		$0.75	$2.44					
10		$500.00	$3,122.00					
11		$1,000.00	$8,221.00					
12		$2,000.00	$8,646.00					
13		$0.75	$2.44					

New Measures

	AJ	AK	AL	AM	AN	AO
1	INCEQUIPCOST	INCEQUIPCOST_FLG	INSTALLEDCOST	INSTALLEDCOST_FLG	ELEC_LOAD_SHAPE	PCT_TOU_AC_ADJ
2						0
3						0
4						0
5						0
6						0
7						0
8						0
9						0
10						0
11						0
12						0
13						0

New Measures

	AP	AQ	AR	AS	AT	AU
1	GAS_SVGS_PROFILE	COMBUST_TYP_CD	ELEC_GRS_NPV_BEN	GAS_GRS_NPV_BEN	CALC_BEN_FLG	DEER_CALC_TYP
2		0	$0.00	$2,329.63		0
3		0	$0.00	$4,167.54		0
4		0	$0.00	$8,480.17		0
5		0	$0.00	$5.70		0
6		0	$0.00	$2,329.63		0
7		0	$0.00	$4,167.54		0
8		0	$0.00	$8,480.17		0
9		0	$0.00	$5.70		0
10		0	$0.00	$2,329.63		0
11		0	$0.00	$4,167.54		0
12		0	$0.00	$8,480.17		0
13		0	$0.00	$5.70		0

New Measures

	AV	AW	AX	AY	AZ	BA	BB	BC
1	KWH_OVRD	THERM_OVRD	KW_OVRD	CUST_CST_OVRD	LIFE_OVRD	NO_SYNC_FLG	ORIG_FILING_MSR_NBR	CMPLT_FLG
2	N	N	N	N	N	N		N
3	N	N	N	N	N	N		N
4	N	N	N	N	N	N		N
5	N	N	N	N	N	N		N
6	N	N	N	N	N	N		N
7	N	N	N	N	N	N		N
8	N	N	N	N	N	N		N
9	N	N	N	N	N	N		N
10	N	N	N	N	N	N		N
11	N	N	N	N	N	N		N
12	N	N	N	N	N	N		N
13	N	N	N	N	N	N		N

New Measures

	BD	BE	BF	BG	BH	BI
1	CMPLT_BY	CMPLT_DT_TM	LT_UPDT_BY	LT_UPDT_DT_TM	PT_LT_UPDT_BY	PT_LT_UPDT_DT_TM
2			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
3			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
4			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
5			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
6			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
7			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
8			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
9			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
10			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
11			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
12			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06
13			LLOVELESS	03-Oct-06	LLOVELESS	03-Oct-06