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FOOD SERVICE

COMMERCIAL GRIDDLE – ELECTRIC & GAS

SWFS004-01

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MEASURE NAME

Commercial Griddle – Electric & Gas

STATEWIDE MEASURE ID

SWFS004-01

TECHNOLOGY SUMMARY

Commercial griddles are used throughout the hospitality industry and typically have a central position on the short-order line. Griddle versatility ranges from crisping and browning, searing, toasting, and warming. For a high-production kitchen, the temperature uniformity of the griddle surface is important to ensure that food is evenly cooked. Recent advances in griddle design have resulted in equipment with greater uniformity, improved controls, and higher production rates.

An energy-efficient commercial electric griddle reduces energy consumption through advanced burner design and controls, and improved temperature uniformity.

Griddle performance is determined by applying the American Society for Testing and Materials (ASTM) Standard Test Method for the Performance of Griddles (F1275).[1] The ASTM Standard Test Method is the industry standard for quantifying the energy use and efficiency of griddles.

MEASURE CASE DESCRIPTION

This measure includes electric and gas "flat" (single-sided) commercial griddles. The measure case specification was derived from lab-based data collected from a sample of economy-grade equipment available in the market that was tested by the Food Service Technology Center (FSTC).

Measure Case Specification

Type	Cooking Energy Efficiency	Idle Energy Rate	Production Capacity (lb/hr)	Source
Electric	75%	293 W/ft²/hr	49.00	Food Service Technology Center (FSTC). 2012. "Commercial Griddle Qualified Project List 2012.xls" As of April 20, 2012.
Gas	46%	2,068 Btu/ft²/hr	49.20	Food Service Technology Center (FSTC). Proprietary database.

[1] American Society for Testing and Materials (ASTM). 2014. *ASTM F1275-14, Standard Test Method for Performance of Griddles.* ASTM International: West Conshohocken, PA.

BASE CASE DESCRIPTION

In the absence of mandatory regulations for testing commercial griddles, there is little incentive for equipment manufacturers to test their base case equipment. Therefore, the performance parameters for the base case griddle were derived from lab-based data from a sample of economy-grade equipment tested by the FSTC.

Base Case Specification

Type	Cooking Energy Efficiency	Idle Energy Rate	Production Capacity (lb/hr)	Source
Electric	60%	400 W/ft²/hr	35.00	Food Service Technology Center (FSTC). 2012. "Commercial Griddle Qualified Project List 2012.xls" As of April 20, 2012.
Gas	30%	3,500 Btu/ft²/hr	25.20	Food Service Technology Center (FSTC). Proprietary database.

CODE REQUIREMENTS

This measure is not governed by either state or federal codes and standards.

Applicable State and Federal Codes and Standards

Code	Applicable Code Reference	Effective Dates
CA Appliance Efficiency Regulations – Title 20 (2013)	None.	n/a
CA Building Energy Efficiency Standards – Title 24 (2014)	None.	n/a
Federal Standards	None.	n/a

Griddle performance is determined by applying the American Society for Testing and Materials (ASTM) Standard Test Method for the Performance of Griddles (F1275).[2] The ASTM Standard Test Method is the industry standard for quantifying the energy use and efficiency of griddles.

NORMALIZING UNIT

Linear feet of griddle width.

[2] American Society for Testing and Materials (ASTM). 2014. *ASTM F1275-14, Standard Test Method for Performance of Griddles.* ASTM International: West Conshohocken, PA.

PROGRAM REQUIREMENTS

Measure Implementation Eligibility

All combinations of measure application type, delivery type, and sector that are established for this measure are specified below. Measure application type is a categorization based on the circumstances and timing of the measure installation; each measure application type is distinguished by its baseline determination, cost basis, eligibility, and documentation requirements. Delivery type is the broad categorization of the delivery channel through which the market intervention strategy (financial incentives or other services) is targeted. This table also designates the broad market sector(s) that are applicable for this measure.

Note that some of the implementation combinations below may not be allowed for some measure offerings by all program administrators.

Implementation Eligibility for Investor-Owned Utilities

Measure Application Type	Delivery Type	Sector
Normal replacement	NonUpStrm	Ag
Normal replacement	NonUpStrm	Ind
Normal replacement	NonUpStrm	Com
Normal replacement	PreRebDown	Ag
Normal replacement	PreRebDown	Ind
Normal replacement	PreRebDown	Com
Normal replacement	DirInstall	Ag
Normal replacement	DirInstall	Ind
Normal replacement	DirInstall	Com
Normal replacement	PreRebUp	Ag
Normal replacement	PreRebUp	Ind
Normal replacement	PreRebUp	Com
New construction	NonUpStrm	Ag
New construction	NonUpStrm	Ind
New construction	NonUpStrm	Com
New construction	PreRebDown	Ag
New construction	PreRebDown	Ind
New construction	PreRebDown	Com
New construction	DirInstall	Ag
New construction	DirInstall	Ind
New construction	DirInstall	Com
New construction	PreRebUp	Ag
New construction	PreRebUp	Ind
New construction	PreRebUp	Com

Eligible Products

This measure includes electric and gas commercial griddles that are ENERGY STAR®-qualified or meet the requirements in the Measure Case Description.

Eligible Building Types and Vintages

This measure is applicable to any nonresidential building type and any vintage.

Eligible Climate Zones

This measure is applicable in any California climate zone.

PROGRAM EXCLUSIONS

Double-sided griddles and used or rebuilt equipment are not eligible.

DATA COLLECTION REQUIREMENTS

Data collection requirements are to be determined.

USE CATEGORY

Food service (FoodServ)

ELECTRIC SAVINGS (kWh)

The annual electric unit energy saving (UES) is calculated as the difference between the baseline and measure case unit energy consumption (UEC).

Annual Electric Unit Energy Consumption

The daily electric UEC (baseline or measure case) is equal to the sum of the energy required for cooking, preheat, and idle modes of griddle operation.[3] These calculations and the inputs are provided below.

$$UEC\_DAY = cooking\ energy + idle\ energy + preheat\ energy$$

Cooking energy is a function of the pounds of food cooked per day, the energy absorbed per pound of food product during cooking, and the measured heavy load cooking energy efficiency.

$$cooking\ energy = \left[\frac{LBFOOD \times EFOOD}{EFFICIENCY \times Btu/kWh}\right]$$

LBFOOD = *Estimated pounds of food cooked per day (lb)*
EFOOD = *ASTM energy to food ratio, the energy absorbed by food during cooking (Btu/lb)*
EFFICIENCY = *Measured heavy load cooking efficiency (%, decimal format)*
Btu/kWh = *Btu to kWh conversion factor*

[3] American Society for Testing and Materials (ASTM). 2014. *ASTM F1275-14, Standard Test Method for Performance of Griddles.* ASTM International: West Conshohocken, PA.

Preheat energy is calculated as the product of the assumed number of preheats per day and the energy required per preheat mode.

$$preheat\ energy = (nP\ x\ EP)$$

nP = *Estimated number of preheats per day (#)*
EP = *Measured preheat energy (kWh)*

Idle energy is a function of the idle energy rate, operating hours per day, and production capacity; idle energy does not include preheat time.

$$idle\ energy = \left[SAREA \times \frac{IDLERATE}{1{,}000} \times \left(EHOUR - \frac{LBFOOD}{PC} - (nP\ \times\ TP/MinHr)\right)\right]$$

SAREA = *Surface Cooking Area of the Griddle (ft²)*
IDLE RATE = *Measured idle energy rate (kW)*
EHOUR= *Estimated operating hours per day (hrs)*
LBFOOD = *Estimated pounds of food cooked per day (lbs)*
PC = *Measured production capacity (lbs/hr)*
nP = *Estimated number of preheats per day (#)*
TP = *Estimated preheat time (min)*
MinHr = *Constant, 60 minutes per hour (min)*

The **annual UEC** is calculated as the daily UEC multiplied by the number of operating days per year.

$$UEC\_YEAR = UEC\_DAY \times EDAYS$$

UEC_DAY = *Daily unit energy consumption (kWh)*
EDAYS= *Estimated operating days per year (days)*

Annual Electric Unit Energy Savings

The **annual UES** is calculated as the difference between the baseline and measure case annual UEC.

$$UES_{YEAR} = [UEC\_YEAR_{Base} - UEC\_YEAR_{Measure}]$$

UEC_YEAR = *Annual UEC, baseline or measure (kWh/year)*
UES_YEAR= *Annual UES (kWh/year)*

Inputs and Assumptions

The inputs for the calculation of the UES of a commercial electric griddle are specified below. Inputs for the measure case model represent the average of values of the tested units on the Food Service Technology Center (FSTC) Qualified Products List (QPL). All values are estimated for a 3-ft x 2-ft griddle unless otherwise stated per square foot or linear foot.) Preheat time is assumed to be 15 minutes, since the industry standard preheat time is 10 to 20 minutes, based upon FSTC professional judgement.

Electric UEC Inputs

Parameter	Base Case Model	Measure Case Model	Source
Preheat Time (minutes)	15	15	Professional judgement.
Griddle Width (ln-ft)	3	3	Base Case: Food Service Technology Center (FSTC). Proprietary database. Measure Case: Food Service Technology Center (FSTC). 2012. "Commercial Griddle Qualified Project List 2012.xls" As of April 20, 2012.
Surface Area (ft²)	6	6	
Preheat Energy (kWh)	4.0	2.0	
Normalized Idle Energy Rate (W/ft²)	400	293	
Idle Energy Rate (kW)	2.40	1.76	
Heavy Load Cooking Energy Efficiency (%)	60%	75%	
Production Capacity (lbs/hr)	35	49	
Number of Preheats per Day (#/day)	1	1	
Pounds of Food Cooked per Day (lb)	100	100	
ASTM Energy to Food (Btu/lb)	475	475	
Operating Hours/Day (hours)	12	12	Spoor, C., D. Zabrowski, and L. Mills. 2014. Characterizing the Energy Efficiency Potential of Gas-Fired Commercial Food Service Equipment. Prepared for the California Energy Commission. CEC-500-2014-095. Appendix E Table E-4.
Operating Days/Year (days)	365	365	

A sample calculation of daily UEC of the base case model is provided below.

$$UEC\_DAY = 23.17 + 21.34 + 4.00 = 48.51$$

$$cooking\ energy = \left[\frac{100 \times 475 \times \frac{1}{3412.14}}{0.60}\right] = 23.17$$

$$idle\ energy = \left[6 \times \frac{400}{1000} \times \left(12 - \frac{100}{35} - (1 \times 15/60)\right)\right] = 21.34$$

$$preheat\ energy = (1 \times 4.00) = 4.00$$

PEAK ELECTRIC DEMAND REDUCTION (KW)

The actual contribution to building peak demand may vary significantly depending on its usage pattern in relation to that of other electric equipment in the facility (operating schedule, appliance ON time, etc.). The probability of an appliance drawing its average rate during the period that the peak period is significantly higher than for any other input rate for that appliance. Therefore, it has been assumed that the probable contribution to building peak demand is equal to the combination oven average demand.

Peak Demand Reduction Calculation

It is assumed that this measure operates within the Database of Energy Efficient Resources (DEER) peak period of 4 p.m. to 9 p.m. on weekdays[4] at a constant load throughout the day. The average and peak demand reduction calculations utilize the measured data of base case and measure case griddles specified for Electric Savings. The average demand (baseline or measure case) is equal to the annual unit energy consumption (UEC) divided by the assumed annual hours of operation.

$$Demand_{avg} = \frac{UEC\_YEAR_{\ kWh}}{EDAYS \times EHOUR}$$

UEC_YEAR = *Annual UEC, baseline or measure (kWh/year)*
EDAYS= *Estimated operating days per year (days)*
EHOUR= *Estimated operating hours per day (hrs)*

The average demand reduction, therefore, is the difference between the baseline and measure case average demand. The estimated peak demand reduction is calculated as the average demand reduction multiplied by the coincident demand factor (CDF).

$$PeakDemandReduction = \left[\left(Demand_{avg,base} - Demand_{avg,measure}\right) \times CDF\right]$$

$Demand_{avg}$ = *Average demand, base or measure case (kW)*
CDF = *Coincident demand factor*

Inputs and Assumptions

The table below provides the inputs for the calculation of peak demand reduction of a commercial griddle.

Demand Reduction Inputs

Parameter	Value	Source
Coincidence Demand Factor	0.90	Itron, Inc. 2005. *2004-2005 Database for Energy Efficiency Resources (DEER) Update Study - Final Report.* Prepared for Southern California Edison. Pages 3-15 to 3-17, Table 3-14.

GAS SAVINGS (THERMS)

The annual electric unit energy saving (UES) is calculated as the difference between the baseline and measure case unit energy consumption (UEC).

[4] California Public Utilities Commission (CPUC). 2018. *Resolution E-4952.* October 11. Op 1.

Annual Electric Unit Energy Consumption

The daily gas UEC (baseline or measure case) is equal to the sum of the energy required for cooking, preheat, and idle modes of griddle operation.[5] These calculations and the inputs are provided below.

$$UEC\_DAY = cooking\ energy + idle\ energy + preheat\ energy$$

Cooking energy is a function of the pounds of food cooked per day, the energy absorbed per pound of food product during cooking, and the measured heavy load cooking energy efficiency.

$$cooking\ energy = \left[\frac{LBFOOD \times EFOOD}{EFFICIENCY}\right]$$

LBFOOD = *Estimated pounds of food cooked per day (lb)*
EFOOD = *ASTM energy to food ratio, the energy absorbed by food during cooking (Btu/lb)*
EFFICIENCY = *Measured heavy load cooking efficiency (%, decimal format)*

Preheat energy is calculated as the product of the assumed number of preheats per day and the energy required per preheat mode.

$$preheat\ energy = (nP\ x\ EP)$$

nP = *Estimated number of preheats per day (#)*
EP = *Measured preheat energy (Btu)*

Idle energy is a function of the idle energy rate, operating hours per day, and production capacity; idle energy does not include preheat time.

$$idle\ energy = \left[SAREA \times IDLERATE \times \left(EHOUR - \frac{LBFOOD}{PC} - (nP\ \times\ TP/MinHr)\right)\right]$$

SAREA = *Surface Cooking Area of the Griddle (ft²)*
IDLE RATE = *Measured idle energy rate (Btu)*
EHOUR= *Estimated operating hours per day (hrs)*
LBFOOD = *Estimated pounds of food cooked per day (lbs)*
PC = *Measured production capacity (lbs/hr)*
nP = *Estimated number of preheats per day (#)*
TP = *Estimated preheat time (min)*
MinHr = *Constant, 60 minutes per hour (min)*

The **annual UEC** is calculated as the daily UEC multiplied by the number of operating days per year.

$$UEC\_YEAR = \frac{UEC\_DAY \times EDAYS}{BtuTherm}$$

UEC_DAY = *Daily unit energy consumption (Btu)*
EDAYS= *Estimated operating days per year (days)*
BtuTherm = *Btu to therm conversion factor*

[5] American Society for Testing and Materials (ASTM). 2014. *ASTM F1275-14, Standard Test Method for Performance of Griddles.* ASTM International: West Conshohocken, PA.

Annual Gas Unit Energy Savings

The **annual UES** is calculated as the difference between the baseline and measure case annual UEC.

$$UES_{YEAR} = [UEC\_YEAR_{Base} - UEC\_YEAR_{Measure}]$$

UEC_YEAR = Annual UEC, baseline or measure (Therms/year)
UES_YEAR= Annual UES (Therms/year)

Inputs and Assumptions

The inputs for the calculation of the UES of a commercial gas griddle are specified below. Inputs for the measure case model represent the average of values of the tested units on the Food Service Technology Center (FSTC) Qualified Products List (QPL). All values are estimated for a 3-ft x 2-ft griddle unless otherwise stated per square foot or linear foot.) Preheat time is assumed to be 15 minutes, since the industry standard preheat time is 10 to 20 minutes, based upon FSTC professional judgement.

Gas UEC Inputs

Parameter	Base Case Model	Measure Case Model	Source
Preheat Time (minutes)	15	15	Professional judgement.
Griddle Width (ln-ft)	3	3	Base Case: Food Service Technology Center (FSTC). Proprietary database. Measure Case: Food Service Technology Center (FSTC). 2012. "Commercial Griddle Qualified Project List 2012.xls." As of April 20, 2012.
Surface Area (ft²)	6	6	
Preheat Energy (Btu/ft²)	3,500	2,500	
Preheat Energy (Btu)	21,000	15,000	
Normalized Idle Energy Rate (Btu/hr/ft²)	3,500	2,068	
Idle Energy Rate (Btu/hr)	21,000	12,408	
Heavy Load Cooking Energy Efficiency (%)	30%	46%	
Production Capacity (lb/hr/ft²)	4.2	8.2	
Production Capacity (lb/hr)	25.2	49.2	
Number of Preheats per Day (#/day)	1	1	
Pounds of Food Cooked per Day (lb)	100	100	
ASTM Energy to Food (Btu/lb)	475	475	
Operating Hours/Day (hours)	12	12	Spoor, C., D. Zabrowski, and L. Mills. Characterizing the Energy Efficiency Potential of Gas-Fired Commercial Food Service Equipment. Prepared for the California Energy Commission. CEC-500-2014-095. October 2014. Appendix E Table E-4.
Operating Days/Year (days)	365	365	

A sample calculation of daily energy consumption (Btu) is provided below.

$$EDAY = 158{,}333 + 163{,}417 + 21{,}000 = 342{,}750 \ (Btu)$$

$$cooking\ energy = \left[\frac{100 \times 475}{0.30}\right] = 158{,}333 \ (Btu)$$

$$idle\ energy = \left[6 \times 3{,}500 \times \left(12 - \frac{100}{25.2} - (1 \times 15/60)\right)\right] = 163{,}417 \ (Btu/hr)$$

$$preheat\ energy = (1 \times 21{,}000) = 21{,}000 \ (Btu)$$

LIFE CYCLE

Effective Useful Life (EUL) is an estimate of the median number of years that a measure installed through a program is still in place and operable. Remaining Useful Life (RUL) is an estimate of the median number of years that a technology or piece of equipment replaced or altered by an energy efficiency program would have remained in service and operational had the program intervention not caused the replacement or alteration.

The EUL specified for gas and electric commercial griddles are specified below. Note that RUL is only applicable for add-on and accelerated replacement measures and not applicable for this measure.

Effective Useful Life and Remaining Useful Life

Parameter	Commercial Griddle – Electric	Commercial Griddle – Gas	Source
EUL (yrs)	12	12	Robert Mowris & Associates. 2005. *Ninth Year Retention Study of the 1995 Southern California Gas Company Commercial New Construction Program*. Prepared for Southern California Gas Company. Study ID Number 718A. California Public Utilities Commission (CPUC), Energy Division. 2003. *Energy Efficiency Policy Manual v 2.0.* Page 18 Table 4.1.
RUL (yrs)	n/a	n/a	n/a

BASE CASE MATERIAL COST ($/UNIT)

The base case material cost for equipment *delivered via direct install* is equal to $0.

For *all other delivery types*, the estimated equipment cost is based on list cost data for electric and gas griddles. Base case unit list prices were derived as the average of the manufacturer list prices for 3-ft electric and gas griddles retrieved from the AutoQuotes online catalog for foodservice equipment and supplies.[6] The prices were then divided by three to normalize the price per linear foot. Because it is common knowledge that dealers do not pay the published list prices for equipment, it was necessary apply a discount factor to the AutoQuotes data to more accurately reflect the actual prices paid for the equipment. The discount factor of 50% was based upon professional judgement by Food Service Technology Center (FSTC) staff. Additional analysis to validate the reasonableness of this value was conducted by comparing AutoQuotes published prices with actual prices on invoices submitted through the Southern California Gas Company Instant Rebates! point-of-sale rebate program from 2015 through August of 2017.[7] This verification revealed that a "list-to-actual" cost ratio for food service equipment of 50% is a reasonable average discount factor.

[6] Food Service Technology Center. 2016. "Griddle Prices Update 2016.xlsx"

[7] Energy Solutions. 2017. "2016 IMC Analysis - For Cal TF (Energy Solutions).xls."

MEASURE CASE MATERIAL COST ($/UNIT)

The measure case material cost for *all delivery types* was based on list cost data for electric and gas griddles. Measure case unit list prices were derived as the average of the manufacturer list prices for 3-ft electric and gas griddles retrieved from the AutoQuotes online catalog for foodservice equipment and supplies. The prices were then divided by three to normalize the price per linear foot. Because it is common knowledge that dealers do not pay the published list prices for equipment, it was necessary apply a discount factor to the AutoQuotes data to more accurately reflect the actual prices paid for the equipment. The discount factor of 50% was based upon professional judgement by Food Service Technology Center (FSTC) staff. Additional analysis to validate the reasonableness of this value was conducted by comparing AutoQuotes published prices with actual prices on invoices submitted through the Southern California Gas Company Instant Rebates! point-of-sale rebate program from 2015 through August of 2017.[8] This verification revealed that a "list-to-actual" cost ratio for food service equipment of 50% is a reasonable average discount factor.

BASE CASE LABOR COST ($/UNIT)

The base case labor cost for equipment *delivered via direct install* is equal to $0.

For *all other delivery types*, the base case and measure case model installation costs are expected to be the same for the customer and thus were not estimated for the incremental cost analysis.

MEASURE CASE LABOR COST ($/UNIT)

The measure case labor cost for equipment *delivered via direct install* will be derived as the average installation cost submitted by one or more implementation contractors. The actual installation cost can vary by contractor, the date when the work occurred, and by the volume of each specific contractor's business. Contractor costs are confidential information and are based upon contractually agreed upon pricing as established in their purchase order with the program administrator. Therefore, the program administrator program tracking systems are the only source for the labor installation cost data. The program administrator will utilize the actual program cost to evaluate the cost-effectiveness of the measure.

For *all other delivery types*, a high efficiency model does not require additional installation labor compared to a base case model. Since this measure is applicable for normal replacement and new construction installations, the base case and measure case model installation costs are expected to be the same for the customer and thus were not estimated for the incremental cost analysis.

NET-TO-GROSS (NTG)

The net-to-gross (NTG) ratio represents the portion of gross impacts that are determined to be directly attributed to a specific program intervention. These NTG values are based upon the average of all NTG ratios for all evaluated 2006 – 2008 commercial, industrial, and agriculture programs, as documented in the 2011 DEER Update Study conducted by Itron, Inc. These sector average NTGs ("default NTGs") are

[8] Energy Solutions. 2017. "2016 IMC Analysis - For Cal TF (Energy Solutions).xls."

applicable to all energy efficiency measures that have been offered through commercial, industrial, and agriculture sector programs for more than two years and for which impact evaluation results are not available.

Net-to-Gross Ratios

Parameter	Commercial Griddle – Electric	Commercial Griddle – Gas	Source
NTG – Commercial	0.60	0.60	Itron, Inc. 2011. *DEER Database 2011 Update Documentation.* Prepared for the California Public Utilities Commission. Page ES-8 Table ES-9 and Page 15-4 Table 15-3.
NTG – Industrial	0.60	0.60	
NTG - Agriculture	0.60	0.60	

GROSS SAVINGS INSTALLATION ADJUSTMENT (GSIA)

The gross savings installation adjustment (GSIA) represents the ratio of the number of verified installations of the measure to the number of claimed installations reported by the utility. This factor varies by end use, sector, technology, application, and delivery method. This GSIA rate is the current "default" rate specified for measures for which an alternative GSIA has not been estimated and approved.

Gross Savings Installation Adjustment

Parameter	Value	Source
GSIA	1.0	California Public Utilities Commission (CPUC), Energy Division. 2013. *Energy Efficiency Policy Manual Version 5*. Page 31.

NON-ENERGY IMPACTS

Non-energy impacts for this measure have not been quantified.

DEER DIFFERENCES ANALYSIS

The table below summarizes the inputs and methods that are and are not based upon the Database for Energy Efficient Resources (DEER).

DEER Difference Summary

DEER Item	Comment / Used for Workpaper
Modified DEER methodology	No
Scaled DEER measure	No
DEER Base Case	No
DEER Measure Case	No
DEER Building Types	No
DEER Operating Hours	No
DEER eQUEST Prototypes	No
DEER Version	n/a
Reason for Deviation from DEER	DEER does not contain this measure
DEER Measure IDs Used	n/a

DEER Item	Comment / Used for Workpaper
NTG	Source: DEER 2016. NTG of 0.60 is associated with NTG ID: *Com-Default>2yrs*, *Ag-Default>2yrs*, *Ind-Default>2yrs*
GSIA	Source: GSIA values were obtained using the DEER READI tool. The GSIA value of 1.0 is associated with GSIA ID: *Def-GSIA*
EUL/RUL	Source: DEER 2016. The EUL = 12 years is associated with EUL Ids: *Cook-ElecGriddle* and *Cook-GasGriddle*.

REVISION HISTORY

Measure Characterization Revision History

Revision Number	Revision Complete Date	Primary Author, Title, Organization	Revision Summary
01	07/30/2018	Jennifer Holmes Cal TF Staff	Draft of consolidated text for this statewide measure is based upon: PGECOFST103, Revision #7 (August 2016) SCE13CC005, Revision #3 (January 21, 2016) WPSDGENRCC0016, Revision #1 (December 8, 2014) Consensus reached among Cal TF members.
	10/9/2018 10/30/2018	Jennifer Holmes Cal TF Staff	Completed final revisions for submittal of version 01.