Commercial Foodservice Appliance Qualification Requirements for the California Energy Wise Program:

Any Commercial cooking appliances must have a representative model tested and verified by a California IOU foodservice center to be eligible for inclusion in the California Energy Wise utility incentive program. The centers include the PG&E Food Service Technology Center, the Southern California Gas Company Foodservice Equipment Center and the Southern California Edison Company Foodservice Technology Center. Energy Wise qualification and verification testing will be conducted free of charge.

Following is a list of contacts for the California utility foodservice centers:

PG&E Food Service Technology Center
12949 Alcosta Blvd., Suite 101
San Ramon, CA 94583
(925) 866-2844
Attn: David Zabrowski

SoCalGas Company Foodservice Equipment Center is
9240 Firestone Blvd.
Downey, CA 90241
(565) 803-7323
Attn: Nicole O'Rourke

SoCal Edison Foodservice Tech Center is
6050 N. Irwindale Avenue
Irwindale, CA 91702
(626) 812-7558
Attn: Andre Saldivar

In addition, certain products are regulated by the California Energy Commission (CEC) under the California Title 20 Appliance Regulations. Title 20 requires certain products (e.g., refrigerators, freezers, holding cabinets, ice machines, convection ovens) to be listed in the CEC appliance database to be eligible for sale within the state. The current version of the regulations is available on the California government website at http://www.energy.ca.gov/appliances/. Testing must be conducted by a CEC-registered testing lab. First party (manufacturer) labs are eligible as long as they have been registered with the CEC. Testing labs need to be registered every year.

In order to comply with CEC directives, affected products will need to be listed in the CEC database to be eligible for inclusion on the list of qualifying products for the California Energy Wise incentive program. All three California IOU foodservice test centers maintain registration with the CEC and data from utility labs can be used to comply with Title 20 requirements.

Performance criteria for the California Energy Wise foodservice incentive are detailed in the following pages:

Commercial Combination Ovens

Electric Combination Ovens: The electric combination oven/steamer must have a tested steam mode cooking energy efficiency of ≥50% and convection mode cooking energy efficiency of ≥70% utilizing American Society for Testing and Materials (ASTM) Standard F2861, and meet the idle rate requirements in Table 1.

Gas Combination Ovens: The gas combination oven/steamer must have a tested steam mode cooking energy efficiency of ≥38% and convection mode cooking energy efficiency of ≥44% utilizing American Society for Testing and Materials (ASTM) Standard F2861, and meet the idle rate requirements in Table 1.

Table 1 ASTM F2861 Idle Rate Requirements for Commercial Combination Oven/Steamers.

Combi Oven Type	Steam Mode Idle Energy Rate	Convection Mode Idle Energy Rate
Electric Combi < 15 pan capacity*	≤ 5.0 kW	≤ 2.0 kW
Electric Combi 15−28 pan capacity*	≤ 6.0 kW	≤ 2.5 kW
Electric Combi > 28 pan capacity*	≤ 9.0 kW	≤ 4.0 kW
Gas Combi < 15 pan capacity*	≤ 15,000 Btu/h	≤ 8,000 Btu/h
Gas Combi 15−28 pan capacity*	≤ 18,000 Btu/h	≤ 10,000 Btu/h
Gas Combi > 28 pan capacity*	≤ 28,000 Btu/h	≤ 16,000 Btu/h

*Combination oven/steamer pan capacity on based on the maximum capacity of full-size 2 ½-inch deep hotel pans. This must be consistent with the number of pans used to meet the energy-efficiency qualifications per ASTM F2861.

Commercial Convection Ovens

Electric Convection Ovens: Qualifying models must be listed in the California Energy Commission database and meet the following criteria: The half-size electric oven must meet ENERGY STAR® specifications or have a tested heavy load potato cooking energy efficiency ≥ 71% and idle rate ≤ 1.0 kW utilizing ASTM Standard F1496. The full-size (≤ 5 pans) electric oven must meet ENERGY STAR® specifications or have a tested heavy load potato cooking energy efficiency ≥ 71% and idle rate ≤ 1.6 kW utilizing ASTM Standard F1496. The large full-size (> 5 pans) electric oven must have a tested heavy load potato cooking energy efficiency ≥ 73% and idle rate ≤ 1.9 kW utilizing ASTM Standard F1496.

Gas Convection Ovens: Qualifying models must be listed in the California Energy Commission database and meet the following criteria: The half-size gas oven must have a tested heavy load potato cooking energy efficiency ≥ 46% and idle rate ≤ 8,000 Btu/h utilizing ASTM Standard F1496. The full-size (≤ 5 pans) gas oven must meet ENERGY STAR® specifications or have a tested heavy load cooking energy efficiency ≥ 46% and idle rate ≤ 12,000 Btu/h utilizing ASTM Standard F1496. The large full-size (> 5 pans) gas oven must have a tested heavy load potato cooking energy efficiency ≥ 46% and idle rate ≤ 13,000 Btu/h utilizing ASTM Standard F1496.

Commercial Rack Ovens

Gas Rack Oven: The tested commercial rack oven must meet or exceed baking energy efficiency of ≥ 50% utilizing ASTM Standard F2093.

Commercial Conveyor Ovens

Gas Conveyor Oven: The tested commercial conveyor oven must meet or exceed baking energy efficiency of ≥42% and have an idle energy rate of ≤ 57,000 Btu/h, utilizing ASTM Standard F1817. Multiple-deck oven configurations are paid per qualifying oven deck.

Commercial Deck Ovens

Electric Deck Oven: The tested commercial electric deck oven must have a tested heavy load cooking energy efficiency of 60% and an idle energy rate less than or equal to 1,300W (≤1,300 W), utilizing ASTM Standard F1965. Multiple deck configurations are paid per qualifying oven deck.

Commercial Fryers

Electric Fryers: The commercial electric fryer (vat width < 18-inches) must meet ENERGY STAR® specifications for energy efficiency or must have a tested heavy load cooking energy efficiency of 80% and an idle energy rate less than or equal to 1,000 W, utilizing ASTM Standard F1361. The commercial electric large vat fryer (vat width ≥ 18-inches) must meet ENERGY STAR® specifications for energy efficiency or must have a tested heavy load cooking energy efficiency of 80% and an idle energy rate less than or equal to 1,100 W, utilizing ASTM Standard F2144. Multiple vat configurations are paid per qualifying vat.

Gas Fryers: The commercial gas fryer (vat width < 18-inches) must meet ENERGY STAR® specifications for energy efficiency or must have a tested heavy load cooking energy efficiency of 50% and an idle energy rate less than or equal to 9,000 Btu/h, utilizing ASTM Standard F1361. The commercial gas large vat fryer (vat width ≥ 18-inches) must meet ENERGY STAR® specifications for energy efficiency or must have a tested heavy load cooking energy efficiency of 50% and an idle energy rate less than or equal to 12,000 Btu/h, utilizing ASTM Standard F2144. Multiple vat configurations are paid per qualifying vat.

Commercial Griddles

Electric Griddle: The tested griddle must have a tested heavy load cooking energy efficiency of ≥70% and an idle energy rate ≤ 355 watts per ft² of cooking surface utilizing ASTM Standard F1275.

Gas Griddle: The tested griddle must meet ENERGY STAR® specifications or have a tested heavy load cooking energy efficiency of ≥38% and an idle energy rate ≤ 2,650 Btu/h per ft² of cooking surface utilizing ASTM Standard F1275.

Commercial Steam Cookers

Electric Steam Cookers: The commercial steam cooker must meet ENERGY STAR® specifications for energy efficiency or must have a tested heavy load potato cooking energy efficiency of 50% utilizing ASTM Standard F1484.

Gas Steam Cookers: The commercial steam cooker must meet ENERGY STAR® specifications for energy efficiency or must have a tested heavy load potato cooking energy efficiency of 38% utilizing ASTM Standard F1484.

Commercial Solid Door Reach-in Refrigerators and Freezers

In all categories, the refrigeration system shall be built-in (packaged), cases with remote refrigeration systems do not qualify. Used or rebuilt equipment is not eligible. Qualifying models must be listed in the California Energy Commission database and meet ENERGY STAR® V2.0 specifications for energy efficiency as listed in Table 2. These specifications are also available at the www.energystar.gov web site.

Table 2. Energy Efficiency Requirements for Commercial Solid Door Reach-In Freezers and Refrigerators.

Measure Description	Qualifying Criteria (Energy Consumption Under Test Conditions)
Freezers 0 ≤ V < 15 ft³	≤ 0.250 × V + 1.25 kWh/day
Freezers 15 ≤ V < 30 ft³	≤ 0.400 × V – 1.000 kWh/day
Freezers 30 ≤ V < 50 ft³	≤ 0.163 × V + 6.125 kWh/day
Freezers 50 ≤ V ft³	≤ 0.158 × V + 6.333 kWh/day
Chest Freezers	≤ 0.270 × V + 0.130 kWh/day
Refrigerators 0 ≤ V < 15 ft³	≤ 0.089 × V + 1.411 kWh/day
Refrigerators 15 ≤ V < 30 ft³	≤ 0.037 × V + 2.200 kWh/day
Refrigerators 30 ≤ V < 50 ft³	≤ 0.056 × V + 1.635 kWh/day
Refrigerators 50 ≤ V ft³	≤ 0.060 × V + 1.416 kWh/day
Chest Refrigerators	≤ 0.125 × V + 0.475 kWh/day

Products are qualified using ASHRAE standard 72-2005 at 0°F ± 2°F for freezers and 38°F ± 2°F for refrigerators.
V = Internal volume in ft^3

Commercial Glass Door Reach-in Refrigerators

In all categories, the refrigeration system shall be built-in (packaged), cases with remote refrigeration systems do not qualify. Used or rebuilt equipment is not eligible. Qualifying models must be listed in the California Energy Commission database and meet ENERGY STAR® 2.0 specifications for energy efficiency as listed in Table 3. These specifications are also available at the www.energystar.gov web site.

Table 3. Energy Efficiency Requirements for Commercial Glass door Reach-In Refrigerators.

Measure Description	Qualifying Criteria (Energy Consumption Under Test Conditions)
Refrigerators 0 ≤ V < 15 ft³	≤ 0.118 × V + 1.382 kWh/day
Refrigerators 15 ≤ V < 30 ft³	≤ 0.140 × V + 1.050 kWh/day
Refrigerators 30 ≤ V < 50 ft³	≤ 0.088 × V + 2.625 kWh/day
Refrigerators 50 ≤ V ft³	≤ 0.110 × V + 1.500 kWh/day
Chest Refrigerators	≤ 0.125 × V + 0.475 kWh/day

Products are qualified using ASHRAE standard 72-2005 at 38°F ± 2°F for refrigerators and 0°F ± 2°F for freezers.
V = Internal volume in ft^3

Commercial Ice Makers

This specification covers machines generating 60 grams (2 oz.) or lighter ice cubes, as well as flaked, crushed, and fragmented ice makers. Performance data is based on testing to ARI Standard 810. Only air-cooled machines (self-contained, icemaker heads, or remote condensing) are eligible. Qualifying models must be listed in the California Energy Commission database and meet the Super-Efficient Ice Maker requirements listed in Table 4. Visit www.ahrinet.org for product information and testing procedures. To qualify, the entire ARI tested Ice Making system must be purchased to qualify. Remote machines must be purchased with qualifying remote condenser or remote condenser/compressor unit.

Table 4. Super-Efficient Ice Maker Energy Efficiency Requirements.

Equipment Type	Ice Harvest Rate (lbs ice/day)	Energy Use Limit (kWh/100 lbs ice)	Potable Water Use Limit (gal/100 lbs ice)
Ice Maker Head (IMH)	< 450	8.72 – 0.0073 × H [a]	≤ 20
	≥ 450	5.86 – 0.0009 × H [a]	≤ 20
Remote Condensing Unit (RCU)	< 1,000	7.52 – 0.0032 × H [a]	≤ 20
	≥ 1,000	4.34	≤ 20
Self Contained Unit (SCU)	< 175	15.3 – 0.0399 × H [a]	≤ 30
	≥ 175	8.33	≤ 30

[a] H = Ice Harvest Rate (IHR) for the commercial ice machine as determined by applying ARI Standard 810.

Commercial Hot Food Holding Cabinets

Full-Size Hot Food Holding Cabinet: Qualifying models must be listed in the California Energy Commission database and must meet the following energy efficiency specifications: Full-size holding cabinets are defined as any holding cabinet with an internal measured volume of greater than or equal to 15 cubic feet (≥15 $ft.^3$). This measure does not include cook-and-hold or retherm equipment. All measures must be electric hot food holding cabinets that are fully insulated and have doors. Qualifying cabinets must not exceed the maximum idle energy rate of 20 Watts per cubic foot in accordance with the ASTM Standard F2140.

Half-Size Hot Food Holding Cabinet: Qualifying models must be listed in the California Energy Commission database and must meet the following energy efficiency specifications: Half-size holding cabinets are defined as any holding cabinet with an internal measured volume of less than 15 cubic feet (<15 $ft.^3$). This measure does not include cook-and-hold or retherm equipment. All measures must be electric hot food holding cabinets that are fully insulated and have doors. Qualifying cabinets must not exceed the maximum idle energy rate of 20 Watts per cubic foot in accordance with the ASTM Standard F2140 test method.

Commercial Kitchen Demand Ventilation Control

This incentive applies towards the purchase and installation of a new commercial kitchen exhaust hood control system installed in a new or an existing dedicated commercial kitchen exhaust hood and makeup air system. The control system must be used in conjunction with variable speed fan motor controls. A Project Installation Worksheet must be submitted with the rebate application. Only pre-approved control systems will qualify for an incentive.