



Giorgio's Italian Grill & Pizzeria Mountain View, CA

Giorgio's Italian Grill & Pizzeria is located on the ground floor of a newly constructed, mixed-use commercial building and replaces the longtime mainstay that was Frankie, Johnnie, and Luigi Too! The D'Ambrosio family owns and operates the restaurant, serving the same classic Italian fare that made their legacy restaurant a longtime institution of El Camino Real. While Giorgio's is half the size of the previous restaurant, the new large patio offers customers al fresco dining and the business model will see a greater focus on takeout and delivery service.

Giorgio's now has a new hotline containing modern, energy-efficient, and highly productive cooking equipment. Most of the new equipment is electrically powered in compliance with the City of Mountain View's commercial building reach code that severely restricts the use of natural gas in new construction and extensive renovation projects.*

As a result, kitchen designer Susan McDonnell was tasked with specifying electric cooking equipment to meet the menu demands of the restaurant without sacrificing the performance associated with traditional natural gas cooking equipment.

A longtime collaborator and promoter of the Frontier Energy Food Service Tech Center (FSTC) in Pleasanton, CA, Susan consulted the energy efficiency experts at the FSTC to ensure the selected equipment would provide the ample production capacity and increased energy efficiency necessary to minimize the expected operating cost increase on their utility bill when going all-electric.

**The new building reach code was active at the time of project permitting. In April 2024, the City of Mountain View suspended the all-electric new building requirements to comply with a court ruling.*

The new cookline has four 2-hob induction countertop ranges (pictured below) that otherwise would have been gas-fired open burner models in a traditional kitchen with natural gas infrastructure. FSTC controlled lab testing has demonstrated that induction cooktops surpass the cooking performance of comparable natural gas ranges and make for a cooler and safer work environment for kitchen staff. Cooktops with induction technology are critical to curtailing energy use on an electric cookline as traditional resistive electric cooktops are slow, energy intensive, and radiate more heat into the kitchen space.



Four 2-hob Induction Countertop Ranges



Electric High-Production Griddle (left) & Electric Programmable Fryer (right) with Oil Filtration and Basket Auto-Lifts

Other key pieces of cooking equipment installed include a high-production griddle with a completely uniform cooking surface and a 2-vat programmable fryer battery with filtration and basket auto lifts (pictured above). The fryer delivers high production capacity, a programmable menu, and built-in filtration that will significantly reduce labor commitments.

The cookline also features a ventless mini combination oven sitting beside the main hooded cookline that is programmable, self-cleaning, and equipped with a condensate hood, allowing for unhooded operation. In Giorgio's kitchen, adding the mini combination oven reduced the overall hood length by three feet and delivered a 900 CFM reduction in exhaust air flow rate. Additionally, the oven's programmability and enhanced cleaning functions will also reduce operation and maintenance labor.

In 2024, natural gas infrastructure regulations were called into question and all-electric reach codes were suspended throughout California. Nonetheless, the effective design of low or no carbon kitchens remains a central focus for utilities, regulatory bodies, and kitchen designers. Fortunately, kitchen designers like Susan McDonnell have taken advantage of the FSTC's resources and consulting services to specify best-in-class electric cooking equipment and deliver successful kitchen electrification projects for their clients.

The Giorgio's Italian Pizzeria and Grill project demonstrates that all-electric kitchens can meet or exceed the production of traditional gas kitchens, narrow the operating cost disparity, and achieve a negligible carbon footprint when powered by utilities utilizing a large amount of renewables and carbon-free sources for electricity generation.



Ventless Mini Combination Oven (left) positioned outside the main hooded cookline

Giorgio's Cookline Carbon Footprint & Operating Cost Comparison

Fuel Source	Natural Gas	Electricity (As Built)
Annual Energy (kBtu)	261,462	100,800
Annual Operating Cost [†]	\$5,648	\$11,309
Annual Cookline Carbon Emissions (MTCO ₂ e) [‡]	9.43	1.43

[†]Assumes a PG&E B-19 electricity rate of \$0.32/kWh and the PG&E 2024 forecasted average G-NR1 natural gas rate of \$2.16/therm for non-covered entities.

[‡]Carbon emissions based on PG&E 2022 benchmarking of greenhouse gas emissions for delivered electricity reporting of 0.089 lb CO₂ /kWh.