ENERGY STAR® Commercial Food Service
Virtual Workshop 2022

May 10-12, 2022
Workshop Sessions

• Day 1 ENERGY STAR and Why it Matters: Benefits of ENERGY STAR Certified Equipment
  • Tanja Crk (EPA)

• Day 2 Advanced Cooking: Perspectives from Chefs, Operators, and Kitchen Designers
  • Chef Christopher Galarza (Forward Dining Solutions)
  • Tarah Schroeder (RICCA)
  • Anthony Coschignano (Swarthmore College)

• Day 3 Decarbonization in the Commercial Kitchen: Utility Opportunities and Manufacturer Solutions
  • Scott Heim (Middleby Ventless Cooking Solutions)
  • Nikki Dube (Con Edison)
  • Andre Saldivar (Southern California Edison)
Constructing the Future of Energy

Energy Efficiency & Demand Management
The Evolution of the Utility’s Role in Clean Energy

Core Business
Three Commodities: Electric, Gas and Steam

Our Customers
Diverse market segments, unique building stock

Growth Strategy
Investing $1.5B in “EE” and heating electrification by 2025

Trusted Energy Advisor
Promote customer choice, education and incentives
State and City Policies that Impact EEDM

**New York State Goals**

Climate Leadership and Community Protection Act (CLCPA)

- 85% Reduction in GHG Emissions by 2050
- 100% Zero-emission Electricity by 2040
- 70% Renewable Energy by 2030
- 9,000 MW of Offshore Wind by 2035
- 3,000 MW of Energy Storage by 2030

- 6,000 MW of Solar by 2025
- 22 Million Tons of Carbon Reduction through Energy Efficiency and Electrification

**New Efficiency: New York (“NENY”) Order**

- Order based on New York State’s 40% reduction in GHG emissions by 2030 goal
- Outlines 6-year EE budgets and goals for all JU utilities

- NYSERDA is committing an additional $36.5 million to train over 19,500 New Yorkers for clean energy jobs

**Con Edison’s Clean Energy Commitment**

- Integral player in the State’s Clean Heat transition
- Triple “EE” investments by 2025
- Support for Clean Transportation through “EVs”

- Integrate energy storage solutions
- Provide 100% clean energy by 2040
Con Edison offers energy efficiency programs to reduce demand.

Reduction in demand equates to less stress on the power grid, lower utility bills.
Foodservice Rebates, a Customer Experience

Instant Rebates are point-of-sale incentives that are given as a discount off the customer’s purchase of high-efficiency commercial foodservice equipment.

- No paperwork, rebate applications, or documents
- No coordination with utilities
- No waiting for rebate checks in the mail
Foodservice Rebates, a Dealer Experience

Instant Rebates are point-of-sale incentives that reduce the price of high-efficiency commercial foodservice equipment models that are generally more expensive.

- Online portal for rebate reimbursement claims
- Rebate reimbursement is distributed weekly
- More expensive equipment sold at lower cost
Major cooking equipment accounts for over 35% of the average restaurant’s energy expenditures. Upgrading to high-efficiency equipment uses less energy and can reduce utility costs by as much as $50,000/unit over the lifetime of the product.

**Benefits of High-Efficiency Equipment**

**Cooking Benefits:** Often, energy efficient products have shorter cook times, improved recovery times, and higher production rates.

**More Comfortable Kitchens:** Many energy saving units produce less excess heat, increasing comfort and safety in the kitchen.

**Additional Cost Savings:** High-efficiency equipment offers lower maintenance, oil, water, sewage, and cooling costs.

**Longer Product Lifetimes:** Manufacturers of energy efficient products use high-quality parts and innovative technologies.
# Qualifying Natural Gas Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Rebate per Unit</th>
<th>Est. Lifetime Savings²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combination Oven</td>
<td>$1,200 – $2,500*</td>
<td>$11,500 – $56,000</td>
</tr>
<tr>
<td>Convection Oven</td>
<td>$1,250</td>
<td>$3,000</td>
</tr>
<tr>
<td>Conveyor Oven</td>
<td>$1,000</td>
<td>$7,500</td>
</tr>
<tr>
<td>Fryer</td>
<td>$1,000</td>
<td>$6,000</td>
</tr>
<tr>
<td>Griddle</td>
<td>$350</td>
<td>$3,200</td>
</tr>
<tr>
<td>Rack Oven</td>
<td>$2,000 – $3,000*</td>
<td>$13,000 – $26,000</td>
</tr>
<tr>
<td>Steamer</td>
<td>$2,500</td>
<td>$43,000</td>
</tr>
<tr>
<td>Dishwasher</td>
<td>$50 – $900</td>
<td>$2,000 – $47,000</td>
</tr>
<tr>
<td>Conveyor Broiler</td>
<td>$1,000 – $2,750*</td>
<td>$12,500 – $35,000</td>
</tr>
<tr>
<td>Infrared Charbroiler</td>
<td>$1,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Infrared Salamander Broiler</td>
<td>$250</td>
<td>$2,500</td>
</tr>
<tr>
<td>Kitchen Demand Control Ventilation</td>
<td>$450**</td>
<td>$2,500</td>
</tr>
</tbody>
</table>

*Incentives and potential savings depend on the size and type of equipment

**Per hp of exhaust fan

²Lifetime savings estimates calculated using FSTC lifecycle cost calculators found at fishnick.com/saveenergy/tools/calculators. Actual savings may vary.
Qualifying Electric Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Rebate per Unit</th>
<th>Est. Lifetime Savings²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combination Oven</td>
<td>$500 – $2,000*</td>
<td>$32,000 – $54,900</td>
</tr>
<tr>
<td>Convection Oven</td>
<td>$500</td>
<td>$4,600</td>
</tr>
<tr>
<td>Deck Oven</td>
<td>$1,500</td>
<td>$18,262</td>
</tr>
<tr>
<td>Fryer</td>
<td>$750</td>
<td>$4,500</td>
</tr>
<tr>
<td>Griddle</td>
<td>$500</td>
<td>$6,500</td>
</tr>
<tr>
<td>Steamer</td>
<td>$2,000</td>
<td>$61,700</td>
</tr>
<tr>
<td>Dishwasher</td>
<td>$50 – $900*</td>
<td>$2,000 – $47,000</td>
</tr>
<tr>
<td>Hot Food Holding Cabinet</td>
<td>$200 – $600*</td>
<td>$3,600</td>
</tr>
<tr>
<td>Kitchen Demand Control Ventilation</td>
<td>$450**</td>
<td>$10,000</td>
</tr>
</tbody>
</table>

*Incentives and potential savings depend on the size and type of equipment
**Per hp of exhaust fan
²Lifetime savings estimates calculated using FSTC lifecycle cost calculators found at fishnick.com/saveenergy/tools/calculators. Actual savings may vary.
What’s Next?

Con Edison is continuing to drive customers to select sustainable cooking equipment by expanding its program to include more electric and induction equipment incentives.

**Standardized savings:** Effective midstream rebate programs require deemed savings methodologies and easily identifiable efficiency tiers.

**Action:** market standards for commercial induction equipment; involving manufacturers to include their models of equipment

**Expand rebates:** Purchasing decisions are driven by price as well as convenience and familiarity.

**Action:** Con Edison to adapt the incentive structure to meet the demands of the marketplace
Con Edison is continuing to drive customers to select sustainable cooking equipment by expanding its program to include more electric and induction equipment incentives.

**Education:** Nearly half of participants are unaware of commercial induction cooking equipment.

**Action:** Market collaboration between all stakeholders to increase education and awareness of high-efficiency cooking equipment.
Thank you!

Website: conED.com/EfficientKitchen

Program related: InstantRebates-NE@energy-solution.com

Marketing related: duben@oru.com
Cooking with Electric- Reducing your Carbon Footprint

Andre Saldivar
Foodservice Technology Center (FTC)
SCE
This paper presents Southern California Edison’s integrated blueprint for California to reduce greenhouse gas emissions and air pollutants. Realizing the blueprint will reduce the threat of climate change and improve public health related to air quality. It is a systematic approach and each measure is integrated with — and depends upon — the success of the others. To be successful, California must approach implementation as an integrated package, applying resources across the board where most effective.

EXECUTIVE SUMMARY

Climate change and air pollution pose serious threats. Climate change effects, such as sea level rise and...
“It’s not enough to get to 100% renewable energy, what we ultimately need to do is actually electrify almost everything and have that run off this new clean energy grid.” – CEC Chair, David Hochschild

“Modeling tells us that 100 percent renewable electricity alone isn’t enough to help us meet our 2030 greenhouse gas reduction goals; we also need to electrify our homes and buildings to reduce the use of fossil fuels in California.” – CPUC President Michael Picker
California’s Environmental Goals

REACH CODES

https://localenergycodes.com/content/map
California’s Environmental Goals

REACH CODES

Electricity Santa Monica Rebate Program

Program Overview
The City of Santa Monica’s Office of Sustainability and the En rebates for the replacement of natural gas equipment with alternatives for single family residences, multi-family res
businesses. Eligible low-income residential applicants may c funding. Funding is limited and applications will be ac
exhausted.

Additional funding for electric appliances may be found ths. Additional funding for Level 2, EV charging equipment is at
SoCalGas Residential EV Charging Incentive Program. Apply
rebate programs is encouraged for maximum savings.

Eligible Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Notes</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Residence</td>
<td>1, 2, 3, 4, 5</td>
<td>Heat Pump Water Heater</td>
</tr>
<tr>
<td>Multi-Family Residence (In-Unit)</td>
<td>1</td>
<td>Electric Commercial Fry</td>
</tr>
<tr>
<td>Multi-Family Residence (Community Space)</td>
<td>1</td>
<td>Electric Commercial Fry</td>
</tr>
<tr>
<td>Small Business (250 employees or less)</td>
<td>1</td>
<td>Electric Commercial Fry</td>
</tr>
</tbody>
</table>

October 5, 2021

Which permit applies to your project?

<table>
<thead>
<tr>
<th>Project</th>
<th>Permit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Pump HVAC</td>
<td>Single Trade Permit</td>
</tr>
<tr>
<td>Heat Pump Water Heater</td>
<td>Single Trade Permit or Comb</td>
</tr>
<tr>
<td>Heat Pump Clothes Dryer</td>
<td>Single Trade Permit</td>
</tr>
<tr>
<td>Induction Range</td>
<td>Single Trade Permit</td>
</tr>
<tr>
<td>Portable Induction Hob</td>
<td>No Permit Needed</td>
</tr>
<tr>
<td>Electric Commercial Griddle</td>
<td>Single Trade Permit</td>
</tr>
<tr>
<td>Electric Commercial Fry</td>
<td>Single Trade Permit</td>
</tr>
<tr>
<td>EV Outlet Only - Level 1 (20 V) or Level 2 (240 V)</td>
<td>EV Charger Building Permit</td>
</tr>
<tr>
<td>EV Charging Station - Level 2 (240 V)</td>
<td>EV Charger Building Permit</td>
</tr>
<tr>
<td>Multiple Projects</td>
<td>Combination Building Permit</td>
</tr>
<tr>
<td>Electric Service Panel Upgrade</td>
<td>Single Trade Permit</td>
</tr>
</tbody>
</table>

Questions?
For questions regarding EV charger rebates, please contact
Ariana.Vito@santamonica.gov

For all other inquiries or advice on how to get started, please contact
Drew.Johnstone@santamonica.gov

Visit SwitchIsOn.org to learn all about efficient electric appliances for your home.
WHY ELECTRIC

• More EFFICIENT
• Faster
• Safer
• Flexible
• Plug & Play
• Up Front Co$t is less on most products
• Less Parts
• Cooler Kitchen
• Easier to Clean
• NO HOOD REQUIRED
• Less Space
• Less Ventilation
WHY INDUCTION

Benefits of Induction:
- Fast
- Flexible
- Modular
- Efficient
- Controllable
- Safer
- Easier to Clean
- Lower Ambient Heat Gain
WHY INDUCTION
Induction Warming Considerations

Benefits of specifying induction serving systems include:

- Allows food to be held at precise temperatures
- Available in a square or round drop-in design
- No water lines or drains required
- Reheat and hold functions
- Pan Compensation
- Automatic stir notification and timer
- Dry pan detection
- Less heat to space
- Less labor associated with cleaning wells and crusted pans
- Safer than traditional warmers
Holding Well Replacement

- Standard Steam Holding Wells
  - Water based
  - Inconsistent Holding Temps
  - Food Quality issues
  - Safety Hazard (Hot to Touch)

- INDUCTION “Dry” Holding Wells
  - Only ON when activated
  - Very Precise Holding Temp
  - Dry Well vs Wet Well
ELECTRIC/INDUCTION OPTIONS?

• What about Back of the House cooking?
ELECTRIC/INDUCTION OPTIONS?

• What about Back of the House cooking?

Energy Star Electric Cooktop
Specification Coming Soon!

VS

Gas Range
ELECTRIC/INDUCTION OPTIONS?

- What about Back/Front of the House cooking?

VS

Gas Teppanyaki Griddle or Plancha

36-inch Plancha
**ELECTRIC/INDUCTION OPTIONS?**

- What about Back of the House cooking?

VS

**Gas Stock Pot Burner**
ELECTRIC/INDUCTION OPTIONS?

- What about Back of the House cooking?

VS
ELECTRIC/INDUCTION OPTIONS?

• What about Back of the House cooking?
Electric Cooking

VENTLESS ADVANTAGE

Table 2: Recommended Rates of Radiant and Convection Heat Gain from Ready-to-Cook Cond. Appliances during Idle (Ready-to-Cook) Cond. (ASHRAE 54, Chapter 16)
Electric Cooking

VENTLESS ADVANTAGE

Specific Equipment Recommended for Exemption

Coffee Equipment
- Urn or brewer
- Roaster (electric)

Cone on the Cob Warmer

Clam Shell Grill/Panini for heating non-grease producing foods
(Tortillas, pastries, rolls, sandwiches from precooked meats and cheeses).
- A unit with dual grills is counted as two equipments.

Crepe Maker (no meat)/Waffle Cone Maker / Waffle Iron
- Limit to 3 units.

Hot Dog Warmer

Hot Plate
- Electric (one burner only)
- Induction cooker

Ovens
- Electric convection oven, 12 KW or less
- Portable ovens (microwave, cook and hold, ovens utilizing Visible and infrared light technology)

Popcorn Popper
- Without external grease vapor release

Rethermalizers (max temperature of 250°F)

Rice Cookers

Rottisserie
- Electric
- Electric and enclosed with max. ambient cavity temperature of 250°F
- Toaster – countertop (bread only)

* Equipment marked with an asterisk typically does not need mechanical exhaust. However, the following criteria should be taken into consideration when determining if mechanical exhaust ventilation is necessary:
- Installation of other unvented heat generating equipment in the same air re-circulation condition, steam tables, or counter-top equipment;
- Presence of heating/cooling (HVAC) system;

- Size of the room or area where the proposed equipment will be installed, including ceiling height.
- How the proposed equipment will be operated, e.g., the types of food prepared, how often, etc.
- Nature of the emissions, e.g., grease, heat, steam, etc.
- Method of producing heat, e.g., gas, electricity, solid fuel, etc.
- Adequate amount of general ventilation: In poorly ventilated confined areas where the proposed equipment(s) like an electric connection oven, clamshell grill, or low-temp. dish washer is located, adequate general ventilation could be provided by a ceiling or wall exhaust fan that provides an air change rate of 3-5 minutes per change.

All equipment shall be operated and maintained in accordance with manufacturer’s recommendations.

Special Consideration for Recirculating Ventilation Systems

The primary benefit of recirculating systems is that they do not require grease ducts with discharge to the outdoors. They are ideal for installations in building designs where it is impractical or too expensive to exhaust to the outdoors. Examples include some indoor food carts, stadiums, arenas, and operations where there is limited food preparation or where there are physical limitations with access to the outdoors. Appliances have been exempted when they include an integral ductless powered ventilation system shown to remove grease, smoke, fumes, and vapors that are emitted during the cooking process. To be exempted these systems must meet applicable performance and construction standards and include built-in fire suppression systems. Nevertheless, heating and cooking appliances produce heat during operation that may result in uncomfortable working conditions for food employees and increased potential for contamination of food by perspiration. Many times this can be resolved with an adequate ceiling fan.

Criteria for approval of Recirculating Systems that may be used by Plan Check include:

1. The facility will be limited to one integral recirculating system unit with an electric appliance or non-integral recirculating system with electrical appliance(s).

2. The standard components of a recirculating system could include: 1) a UL listed grease filter, 2) a high efficiency particulate arresting (HEPA) filter and/or an electrostatic precipitator (ESP) or water system, 3) an activated charcoal or other odor control device, 4) a recirculating fan, and 5) a...
Electric Cooking
VENTLESS ADVANTAGE
Electric Cooking

VENTLESS ADVANTAGE
Electric Cooking
VENTLESS ADVANTAGE
How can the Utilities Help You?

CAenergywise.com
How can the Utilities Help You?
How can the Utilities Help You?

- Services
  - Try B4 U Buy!
  - Consultations
  - Seminars
  - Audits
  - Meeting & Trainings

SCE.com/FTC
Next, try induction cooking for free

**SCE’s Table-Top Induction Lending Program**

• The Table-Top Induction Range Lending Program is open to SCE customers both residential and commercial.

• Customers can borrow an induction range, wok, pot and pan for up to 14 days for free.

**Three Easy Steps**

• Visit our Energy Efficiency Lending Programs website at: [https://sce.myturn.com/](https://sce.myturn.com/)

• Create an Account

• View our inventory, select your items and place them in your cart

• Choose the date and time you would like to pick-up your induction unit

• Check out, and you’ll be on your way to...

  **Get cooking with induction!**
Next, try induction cooking for free

SCE’s Table-Top Induction Lending Program
Contact Info

- Senior Engineer – Andre Saldivar
  - 626-812-7558
  - andre.saldivar@sce.com
  - EECI-FTC@sce.com
  - SCE.com/FTC