

# HVAC

# RESTAURANT AND GROCERY STORE ENERGY AUDIT CHECKLIST

## Heating and Cooling

Need	N/A	Done	ITEM	ENERGY ACTION			COMMENTS
			Thermostat	Install programmable thermostat, set to recommended temps and install a locking cover to prevent tampering			
			Thermostat, Settings		Occupied	Unoccupied	
			Unoccupied setpoint (after business hours)	Heat	70° F	55° F	
				Cool	78° F	85° F	
			Ceiling Fan	Use ceiling fans and raise the A/C setpoint			
			Patio Heater	Turn off heaters when areas are unoccupied			
			Doors, Exterior: air sealing	Install/replace weatherstrip and door sweeps			
			Filters	Clean/replace filters frequently			
			Coils	Clean condensor and evaporator coils			
			AC Economizer	Install Economizer controls and CO2 controls			
			HVAC equipment / system	Replace units with ENERGY STAR, high efficiency systems			
			Preventive Maintenance	Consider a Preventative Maintenance Contract			

## Ventilation System

Need	N/A	Done	ITEM	ENERGY ACTION			COMMENTS
			Restroom Fans	Turn restroom fans off when unoccupied			
				Install occupancy sensors for restroom fans			
			Kitchen Exhaust Hood	Turn off exhaust hood when appliances are off			
				Set Make-up Air temperature to 55 F (for winter mode)			
			Appliances	Center heavy duty appliances (ranges, char broilers) under the hood and push all equipment as far back as possible			
			Grease Filters	Clean/replace grease filters in kitchen hood			
			Side panels	Install side panels on hoods that fail to capture and contain cooking fumes; Rebalance system to reduce overall flow			
			Fan maintenance	Clean fan, replace loose/broken belts (have professional inspect if fan is noisy or not functioning properly)			
			Energy Management System	Install an EMS hood system—hood has sensors for temp and or smoke to turn down the fan when not needed			

# Refrigeration

## RESTAURANT AND GROCERY STORE ENERGY AUDIT CHECKLIST

### Equipment

Need	N/A	Done	ITEM	ENERGY ACTION	COMMENTS
			Cooler / Freezer Doors	Keep all doors closed (include ice machines, prep table)	
			Door closers	Repair or replace damaged door closers for walk-ins	
			Alignment	Align doors – ensure they close properly	
			Gaskets	Replace, maintain door gaskets	
			Strip Curtains	Install new/replace damaged strip curtains on walk-ins	
			Door Heaters	Turn off door heater if no condensation is present	
			Night shades, covers	Install night shades and covers on all open cases	
			Reach-in units	Purchase ENERGY STAR refrigerator or freezer	
			Ice Machines, walk-ins	Replace water-cooled units with air-cooled units	

### Preventive Maintenance

Need	N/A	Done	ITEM	ENERGY ACTION	COMMENTS
			Condenser, Evaporator coils	Clean coils semi-annually	
			Evaporator	Maintain airflow: Remove boxes, other objects (plastic bags) from front and rear of refrigeration unit and coils	
			Refrigerant Lines	Insulate refrigerant suction lines	
			Icing	Check compressor body and refrigerant lines for icing	
			Line heater	Insulate/replace line heater wire for condensate line	
			Compressor	Check for sweating and oil leaks on compressor body and refrigeration lines	
			Short cycling	Check for "short cycling" (compressor frequently running for < 3 minutes): Call service company to repair	
			Defrost time clock	Check and set walk-in defrost clocks as appropriate	
			Refrigerant Level	Check level is "FULL" on sight glass (sight glass is clear) for full charge; If needed, call Service Company	
			Cooler/freezer temp	Check temperatures and adjust to appropriate setting	
			Preventive Maintenance	Consider a Preventative Maintenance Contract	

# Sanitation

# RESTAURANT AND GROCERY STORE ENERGY AUDIT CHECKLIST

## Kitchen, restrooms

Need	N/A	Done	ITEM	ENERGY ACTION	COMMENTS
			Water Leaks	Repair all water leaks, especially hot water	
			Hand Sinks	Install Low Flow Aerators (1.5 gpm or less)	
			Pre-Rinse Spray Valve	Install low flow PRSV (1.28 gpm or less)	
			Food Defrosting	Defrost food in refrigerator	
			Dishwashing	Fully load dishwasher racks	
			Booster Heater	Turn off booster heater on dish machine when closed	
			Dishwasher replacement	Install Energy Star dishwasher and booster heater	

## Water Heater

Need	N/A	Done	ITEM	ENERGY ACTION	COMMENTS
			Temperature Setting	Set Water Heater at proper temp: 120° - 140° F	
			Hot Water Pipes	Insulate all hot water lines	
			Hot Water Recirc Pump	Turn off hot water circulating pump when closed	
			Automated Flue Damper	Activate, maintain water heater automated flue damper	

# Food Prep

Need	N/A	Done	ITEM	ENERGY ACTION	COMMENTS
			Unplug electrical appliances	Reduce "plug load" by unplugging or powering off coffee warmers, holding cabinets, steam tables, plate warmers, heat lamps and conveyor toasters	
			Rarely used equipment	Shut down unneeded equipment during slow periods, limit pre-heat times	
			Employee engagement	Engage staff in energy saving, consider adding routine efficient behaviors to opening and closing checklists	
			Range Tops	Replace missing knobs, fix air shutters, adjust gas flame	
			Oven/Steamer Doors	Align doors so that they close completely; Replace missing or damaged gaskets	
			Electrical Appliance Purchase	Buy ENERGY STAR, energy efficient electrical appliances	
			Gas Appliance Purchase	Buy ENERGY STAR, energy efficient gas appliances	

# Lighting

## RESTAURANT AND GROCERY STORE ENERGY AUDIT CHECKLIST

### Interior

Need	N/A	Done	ITEM	ENERGY ACTION	COMMENTS
			Lighting Fixtures	Clean lighting fixtures; Remove unnecessary lamps and disconnect their ballasts, reduce over lit spaces	
			Back of House - incandescent	Replace all incandescent bulbs with ENERGY STAR CFLs (especially in walk-ins, hoods, and storage areas)	
			Back of House - fluorescent	Replace T12 tube fluorescents with T8 or T5 bulbs (requires a new ballast)	
			Back of House - fluorescent	Replace 32 watt T8s with 25 or 28 watt T8 bulbs as old bulbs burn out	
			Front of House - dimmable incandescent	Install ENERGY STAR dimmable CFLs or LEDs (which are excellent dimmers)	
			Task Lighting	Use LEDs in Exit Signs, Menu Boards, Decorative Signs	
			Occupancy Sensors	Install occupancy sensors in isolated spaces: party rooms, storage rooms, restrooms, walk-ins	

### Exterior

Need	N/A	Done	ITEM	ENERGY ACTION	COMMENTS
			Turn off lights	Turn off exterior and parking lot lights: soffits, decorative, roof lights and menu boards whenever possible; Never leave exterior lighting on during the day	
			Replace T12 lamps	Replace exterior T12 lamps and magnetic ballasts with T8/T5 lamps and electronic ballasts	
			CFLS, LEDs	Install ENERGY STAR CFLS, LEDs	
			Lighting Time Clock	Check for correct clock settings	
			Lighting Photocells	Check for correct operation; Install if none exist	