

ACCESS

ELECTRICAL $\pm$ CONSTRUCTION

A PRACTICAL BUSINESS OWNER GUIDE

The Business Owner's Guide to Electrical Upgrades & Backup Power

Plan improvements. Reduce disruption.
Prepare for what comes next.



A planning guide for owners and property managers

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01 / BUSINESS PRIORITIES

Start with what keeps you open.

Your electrical plan should support the way your business operates today and where it is going next.

Restaurants

Identify refrigeration, cooking, ventilation, point-of-sale, and cleaning equipment. Share the actual equipment schedule before layout and circuit design. Keep food protection and a safe shutdown plan in view.

Retail stores

Plan sales-floor lighting, checkout power, security equipment, displays, and seasonal layouts. Identify the circuits and systems you need to close safely or keep essential operations available.

Offices

Coordinate workstation power with furniture, IT equipment, meeting rooms, and future headcount. Decide which network and communications equipment needs battery backup or standby power.

Choose the outcome before the equipment

Rank your goals: address a concern, reduce disruption, improve the space, or add capacity. Share your operating hours, lease restrictions, planned changes, and target date.

Planning question: If power failed today, what would stop immediately, and what could wait until tomorrow?

02 / SAFETY AND RELIABILITY

Address the warning signs.

Treat recurring electrical symptoms as a reason for professional evaluation, not as part of the daily routine.

Notice patterns, then report them [1]

Repeated breaker trips, damaged cords, unusual heat or odors, and unreliable outlets deserve attention. Stop using affected equipment and notify the person responsible for the site. Staff should not open panels or attempt repairs.

Keep electrical access clear [2]

Electrical working space is not storage space. Keep boxes, shelving, stock, and cleaning equipment out of the required area. Have your electrical contractor confirm the clearances that apply to your equipment.

Protect the route out [3]

Exit routes need adequate lighting, and emergency safeguards such as exit lighting must remain in working order. Arrange appropriate inspection, testing, and maintenance with qualified providers.

Plan maintenance around your operation

Record problems, affected equipment, and when they happen. Ask for an assessment of recurring issues and a maintenance plan appropriate to your building and equipment.

Smoke, fire, or immediate danger: evacuate, follow the site emergency plan, and call 911 from a safe location.

03 / TENANT IMPROVEMENTS

Plan before the walls close.

A new lease, remodel, or expansion is the right time to coordinate electrical work with the full project team.

Confirm the space and the lease

Identify what the landlord provides, what the tenant owns, and who approves changes. Request available electrical drawings and equipment information. Do not assume an existing space can support the next use.

Finalize the equipment schedule

Provide model numbers, manufacturer electrical requirements, and intended locations for kitchen equipment, HVAC, signage, displays, office furniture, and IT. Late substitutions can change circuits, routing, and cost.

Coordinate the trades

Align electrical layouts with architectural, mechanical, plumbing, fire/life-safety, and low-voltage plans. Confirm who handles controls, data, equipment connections, and finish repairs.

Build a realistic opening schedule

Allow time for design review, landlord approvals, permits, utility work, equipment lead times, inspections, and testing. Ask which decisions must be made early to protect the target opening date.

Before signing off: confirm scope, exclusions, responsibilities, allowances, and how changes will be approved.

04 / LIGHTING AND CONTROLS

Improve the space you work in.

Good lighting supports customers, staff, and the tasks happening in each area.

Match light to the activity

Balance general lighting with focused light at counters, desks, prep areas, displays, and work surfaces. Review glare, shadows, color appearance, and customer-facing areas before choosing fixtures.

Pair LEDs with useful controls [4]

LED fixtures can work with occupancy sensing, scheduling, dimming, and daylight-responsive controls. Match the controls to the room and operating hours, then commission them so they work as intended.

Check exterior and support spaces

Review entrances, loading areas, storage rooms, restrooms, and parking areas. Confirm suitable equipment for the environment and coordinate exterior changes with the property owner.

Compare the complete investment

Ask for fixture and control specifications, installation scope, maintenance implications, and estimated energy use. Savings depend on the existing equipment, hours, rates, and final design; request the assumptions in writing.

A practical first step: identify lights that run longest and spaces where poor lighting affects daily work.

05 / EQUIPMENT AND CAPACITY

Buy equipment with a power plan.

The equipment purchase price is only one part of adding a new electrical load.

Confirm the electrical requirements

Have the contractor verify voltage, phase, demand, connection method, and the manufacturer requirements. Commercial equipment is not automatically compatible with the power available in a particular building.

Evaluate the existing system

Ask for an assessment of the service, distribution equipment, circuits, condition, and calculated loads. Spare breaker spaces alone do not establish available capacity. Utility coordination may be needed for service changes.

Plan for growth

Discuss future cooking equipment, refrigeration, HVAC, machinery, EV charging, or additional workstations. Include sensible pathways and space for later work where the project supports them.

Protect sensitive equipment

Discuss surge protection and suitable battery backup for IT, networking, point-of-sale, and controls. Equipment needs vary; involve the IT provider and equipment suppliers in the design.

Before ordering: send the equipment specifications to your electrical contractor and confirm the installation scope.

06 / EMERGENCY BACKUP POWER

Prepare for the outage.

Start with critical operations, then select the backup system that can support them. [5, 6]

Choose the loads that matter

Consider refrigeration, communications, selected lights, security, and pumps. A generator may reduce downtime and losses, but it does not guarantee that the business can stay open. Staff safety and the operating plan still come first.

Compare the power sources

Portable gasoline or propane units involve manual setup and fuel handling. Fixed standby systems may use natural gas, propane, or diesel. Fuel availability, storage, deliveries, maintenance, and site conditions all matter.

Include transfer equipment and sizing [5]

A properly designed transfer system separates utility and generator power. Automatic systems can restore selected loads after startup. Motor starting, voltage, phase, load sequencing, and runtime affect the design. An uninterruptible power supply (UPS) can bridge short outages for suitable equipment.

Required emergency systems [3, 5]

Operational backup does not automatically meet requirements for emergency lighting or other required systems. Have the designer and local authority confirm the necessary equipment, transfer arrangements, and tests.

Portable units: outdoors, 20+ feet from buildings; exhaust away from openings. Never backfeed a wall outlet. [7]

07 / SHUTDOWNS AND HANDOVER

Schedule the work around people.

Agree on the interruption plan before electrical work begins.

Define the shutdown window

Identify affected rooms, tenants, equipment, and business functions. Confirm the preferred work hours and who can authorize a shutdown, approve changes, and grant access.

Prepare the operating team

Coordinate refrigeration, IT shutdowns, alarms, access systems, and equipment restart needs with the relevant providers. Notify staff, the landlord, and other affected occupants through the agreed process.

Leave electrical isolation to qualified workers [1]

The contractor should plan safe isolation and applicable energy-control procedures. Business staff should follow site instructions and stay outside the work area. Keep access routes and emergency arrangements available.

Verify the result before normal operation

Confirm inspections as applicable, circuit labels, operating instructions, and functional checks. Request updated drawings where included, equipment records, warranties, and a clear list of outstanding items.

A good handover answers three questions: What changed? How is it operated? Who do we call for service?

08 / PROJECT PLANNING CHECKLIST

Make the first visit count.

Gather what is available. Your contractor can help identify the information still needed.

The property

Site address, landlord contact, lease approval requirements, operating hours, and access restrictions.

The project

Current concerns, planned equipment and specifications, layouts, available drawings, and target completion date.

The interruption plan

Critical loads, acceptable downtime, shutdown approval contact, restart needs, and preferred work hours.

My three priorities

My budget range and target date

My questions and next step

09 / TAKE THE NEXT STEP

Let's plan your next project.

Contact Access Electrical + Construction to discuss your space, priorities, and next steps.

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Helpful reading

- [1] ESFI: workplace electrical safety
- [2] OSHA: electrical access and working space
- [3] OSHA: exit routes and emergency safeguards
- [4] U.S. DOE: commercial LED lighting and controls
- [5] Cummins: transfer switch application manual
- [6] Ready.gov: business continuity planning
- [7] ESFI: generator safety

About this guide

General planning information, not a site assessment or installation specification. Qualified professionals should evaluate the project and confirm applicable requirements with the relevant authorities. System needs vary by occupancy, equipment, and existing conditions.

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