



LIGHTING UPGRADES & SUB-METERING

LOCAL LAW 88 OF 2009

Compliance Checklist & User's Guide

May 2015 Version 1.0 - This document is intended to help real estate owners and property managers satisfy the requirements of Local Law 88.

What is Local Law 88?

Local Law 88 requires property owners to upgrade their lighting systems and install tenant sub-meters. It is part of a package of laws known as the *Greener Greater Buildings Plan*, which were enacted in December 2009 to improve the energy and water efficiency of New York City's largest existing buildings. For more information on the *Greener, Greater Buildings Plan*, go to www.nyc.gov/ggbbp.

You have until January 1, 2025 to sub-meter your commercial tenant spaces and upgrade the lighting throughout the building in both landlord and tenant areas. That's practically forever, so why worry about it? Because this year you may sign leases that run past that deadline. If you don't do the upgrades during lease turnover, it means you will be disrupting your tenants later while they are occupying the space.

Who's responsible for complying with Local Law 88?

Property owners and co-op and condo associations are ultimately responsible for complying with the law. However, many of these parties will delegate the reporting to their property manager or a consultant. This may be an additional service under some existing contracts.

Who developed this checklist and user's guide, and for what purpose?

Urban Green Council, an environmental nonprofit based in New York City, developed this checklist and user's guide to provide property owners with step-by-step instructions on how to comply with Local Law 88 and guidance for directing staff or consultants. This checklist and user's guide does not provide detailed compliance instructions. For detailed questions, e-mail sustainability@buildings.nyc.gov or visit www.nyc.gov/ggbbp.



LIGHTING UPGRADES & SUB-METERING

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Compliance Checklist

GETTING STARTED

- 1. Determine whether your property is subject to the lighting and sub-metering law.
- 2. Determine if your property is partially exempt from all or part of the lighting and sub-metering law.
- 3. Decide who will be your compliance administrator.

LIGHTING

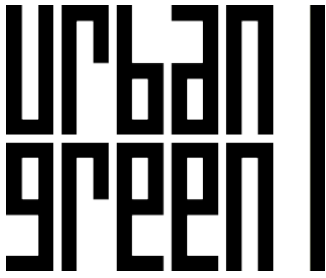
- 4. Create a tracking document.
- 5. Develop an upgrade plan.
- 6. Work light upgrades into your standard leases.
- 7. Consider hiring a lighting consultant.

METERING

- 8. Assess what meters the building currently has.
- 9. Develop meter installation plan.
- 10. Decide what type of meter you will use.
- 11. Adjust standard leases.
- 12. Share the information with tenants at least monthly.

SUBMIT YOUR REPORT

- 13. Submit your compliance report by January 1, 2025.



LIGHTING UPGRADES & SUB-METERING

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User's Guide

GETTING STARTED

1. Determine if your property is subject to the lighting and metering law.

If your property has to comply with Local Law 87, you are required to comply with LL88; skip to question two. If you are not sure, read on.

For determining compliance, the City uses the gross square footage of the building(s) according to the Department of Finance. Your property (tax lot) is subject to the law if it includes:

- One building more than 50,000 gross square feet
- Two or more buildings on the same tax lot that together total more than 100,000 gross square feet
- Two or more buildings held in condominium ownership that are governed by the same board of managers and that together exceed 100,000 gross square feet

Exception: The law does not apply to 1-3 family residences on properties classified as Class One under the Real Property Tax Law.

A list of properties covered by the Law is available from the Mayor's Office at http://www.nyc.gov/html/gbee/html/plan/ll87_covered_buildings_list.shtml. This list is sorted by the building's Borough Block and Lot (BBL) number, a set of three numbers that identifies each property in New York City. The BBL can be found on the Department of Finance's website at <http://www1.nyc.gov/nyc-resources/service/1232/borough-block-lot-bbl-lookup> by selecting "Get the borough, block and lot number for a specific address" in the middle of the page.

2. Determine if your property is exempt from all or part of the lighting and metering law.

Your property is fully or partially exempted from the law if it meets any of the following criteria:

- Properties classified exclusively in occupancy group R-2 and R-3 are exempted from all substantive requirements in the law. However, you must still file a report with the Department of Buildings (DOB)

demonstrating your property is exempt. Read step 3 and then skip to step 13 for instructions on submissions to DOB.

If your property is a mixed use building, the portions that are not in occupancy group R-2 or R-3 or solely serving spaces in those occupancy groups are still subject to this law.

- Houses of worship classified in occupancy group A-3 are exempt from lighting requirements. However, you must still file a lighting report with the Department of Buildings (DOB) demonstrating that your property is exempt (Step #12), and must still comply with the metering requirements.
- Your property may already meet the substantive requirements in the law. If so, you will only need to document compliance.

3. Decide who will be your compliance administrator.

This is the person responsible for tracking compliance with the law. This may be the same person responsible for other city laws or, for large owners, could be a dedicated position.

LIGHTING

Chances are that most of your property will passively come into compliance with the Local Law 88 lighting requirements during natural turnover and space renovations. The challenge will be tracking all this, and then upgrading the spaces that aren't otherwise renovated.

Local Law 88 requires covered buildings to demonstrate the lighting complies with the energy code in place after July 1, 2010. You don't need to upgrade:

- Any individual components of the lighting system that meet those standards
- Compliant areas within larger non-compliant areas that have closable doors and/or permanent floor-to-ceiling partitions.

4. Create a tracking document.

You will need to create a tracking document that covers all areas of your building including landlord shared spaces such as lobbies, back of house spaces such as mechanical areas and stairwells, and all tenant spaces.

The core of your tracking will be a list of tenant spaces in the building and the lease expiration date. Indicate any time lighting was upgraded after 2010, and the year of DOB filing for this upgrade (if known). An Excel chart should work fine for this.

If any lighting in the building was upgraded during a build out *whose plans were submitted after July 1, 2010*, it is in compliance. If plans were submitted before that date, compliance cannot be assumed. Lighting in such spaces must be assessed if not upgraded again before 2025.

Use this document to track changes to lighting in your building until you are required to submit the compliance report to the city on January 1, 2025. You should get as-built or equivalent documentation for your records until the city provides alternative compliance guidance.

5. Develop an upgrade plan.

The vast majority of commercial leases are for 15 years or less. Theoretically, every time the lease changes hands, the space will be upgraded and will come into compliance without any additional effort. Since the law went into effect in 2009, many tenant spaces will take care of themselves.

If you don't normally upgrade lighting during lease turnover, or for leases that expire after January 1, 2025, you will need a plan to renovate during tenant occupancy.

6. Work lighting upgrades into your standard leases.

It makes most sense to work lighting upgrades into the deal conditions of a new lease. The cost of retrofitting lighting during occupancy is significantly more expensive than during initial fit out construction. Most upgrades during occupancy can't happen during business hours so are paid on overtime.

7. Consider hiring a lighting consultant.

A lighting consultant can help you navigate the available lighting options, and ensure the lighting meets your aesthetic and functional needs.

There are two components to energy code lighting standards: how much lighting power is used in a given area (measured in watts of lighting per square foot) and lighting controls (switches, sensors, timers, etc).

In virtually all scenarios, you can come into compliance with today's lighting power densities by swapping your existing light bulbs for LEDs. And often controls can be

installed by swapping out light switches. You'll need a lighting consultant to figure this out.

LEDs are available today in any color that you want. You will not be stuck with the blue-tinged LEDs of yesterday.

METERING

8. Assess what meters a building currently has.

An existing building may have:

- One Con Ed master meter for the entire building. (One bill paid by the building)
- Multiple Con Ed "direct" meters for spaces throughout the building. (Bills paid directly by the owners/lessors of those spaces.)

Either of these kinds of buildings can also have sub-meters (not Con Ed controlled) for smaller spaces.

9. Develop meter installation plan.

Under the law, meters are required for:

- *Each tenant* space larger than 10,000 gross square feet, whether the space is all on one floor or spread across multiple floors; and
- *Entire floors* equal or greater than 10,000 gross square feet that are leased to two or more different tenants.

The Department of Buildings (DOB) has not yet provided guidance on how to measure the square footage of tenant space. We recommend being conservative and using rentable area rather than useable area.

You'll need to decide how and when to install meters. There are two strategies to consider:

- Install on an ongoing basis, space by space, as leases roll over. Ideally this would happen during a new tenant's build out, since it's easier and cheaper to install meters when doing other construction.
- Meter the entire building at once. While this may be disruptive for your tenants and require more up front capital, the per meter cost is significantly lower when installing meters throughout an entire building than doing it space by space. It is also necessary if you want multi-channel meters (see next section).

10. Decide what type of meter you will use.

The key question you will need to decide is whether to install meters that require manual reading or ones that have automatic reading capability. Working with a

specialist, you may also consider if you wish to use single or “multi-channel” meters.

Manual vs. Automatic Reading

The vast majority of meters must be *manually* read. These meters may require extra labor or cause delays in issuing meter bills because someone must walk through the building to manually record readings. The longer it takes for tenants to get meter readings, the harder it is for them to respond to usage changes or assess the impact of energy-efficiency initiatives.

Automatic meters can communicate directly to a remote computer and can be integrated into an electronically delivered meter-billing platform for tenants. Some tenants may see the availability of real-time energy consumption data (available only with automatic meters) as a plus, and this can be used as a marketing tool. To use automatic meters, you will need to run cabling through the building. The cost of this cabling varies greatly, depending on the number of points metered, height of the building, number of electrical closets and their locations, and number of voltages served in the building.

Whether or not you decide to invest in building-wide cabling now, consider buying automatic meters that communicate out rather than ones that can only be read manually. The cost difference is minor (less than 10%) and it preserves the option of automatic reading down the line.

Single Channel vs. Multi-Channel

Single channel meters read energy use from one location. A multi-channel meter can read power usage from 8-16 location points, depending on the meter. If your building currently has no sub-metering at all, you may wish to consider multi-channel meters.

The cost per “metering point” for multi-channel meters are much less than for traditional individual meters. In a large commercial building paying union labor, it can cost as much as \$4,000 to purchase, install and commission an individual meter versus \$3,000 or less per location using multi-channel.

Multi-channel meters are the more economical choice if you choose the “whole building” strategy for metering. If you select multi-channel meters, consider installing more capacity than you need today. Adding points later will then cost little (just labor for wiring), and can occur without power shutoff.

11. Adjust standard leases.

Your leases should include provisions addressing any issues related to metering requirements, particularly energy bills and costs.

Under Local Law 88 starting in 2025 owners must provide tenants with monthly statements of their actual electricity usage. It does not require you to bill your tenants based on this usage. If your lease language stipulates that you will continue to charge tenants a flat fee each month for electricity, the lease language should indicate that bills for tenants will look different after January 1, 2025, with uniform charges regardless of electricity usage.

The remaining issue is who pays for the meter. This should be worked into the lease cost. The lease should also permit you to access the tenant space to assess metering and/or lighting compliance for Local Law 88.

12. Share the information with tenants at least monthly.

Starting January 1, 2025, Local Law 88 requires you to send tenants monthly statements showing their electricity use. For tenant spaces under 10,000 square feet sharing a meter with other tenants, the statement must reflect electricity use allocated by percentage leased area.

Additionally, it is in your best interest for tenants to have access to their energy consumption in real-time, rather than just a monthly statement. This capability is only available with automatic meters that have been set up to transmit energy data in frequent intervals as short as 15 minutes. This information will allow them to test out energy efficiency strategies and reduce usage, improving your property’s benchmarking and Portfolio Manager score. In order to have this capability, discuss it with the meter provider early in the planning process.

SUBMIT YOUR REPORT

13. Submit your compliance report by Jan 1, 2025.

Local Law 88 requires property owners to submit a report by January 1, 2025, completed by a registered design professional or licensed master or special electrician certifying that:

1. All applicable lighting in the building meets or exceeds the energy code in place Jan. 1, 2010; and
2. Sub-meters have been installed in all covered tenant spaces.

The Department of Buildings (DOB) has not issued any guidance regarding the form of this report.