

## SUSTAINABLE DEVELOPMENT GUIDE

The Town of Lexington is taking steps to reduce community greenhouse gas emissions and is striving to achieve net-zero emission by 2050 or earlier. With buildings emitting 70% of Lexington's greenhouse gas emissions, the building sector is a key area of focus for achieving those goals. Buildings in Lexington should minimize adverse environmental and health impacts through their design, construction, and operation. Accordingly, those pursuing development in Lexington should be aware of the codes, policies, and other initiatives that dictate development and energy use in town.

★ STARS INDICATE BINDING REQUIREMENTS

### TO KNOW BEFORE DESIGN

★ **Building Codes.** Lexington has several codes and bylaws that interact to set the baseline efficiency requirements for construction in Lexington. We are moving towards all-electric, net-zero construction.

- The [2021 International Energy Conservation Code](#) serves as the base of Lexington's building codes.
  - Lexington adopted the Massachusetts Stretch Code in 2010. This code was updated in 2023 to have stricter efficiency requirements (225 CRM 22.00 and 225 CMR 23.00). It applies to renovations and new construction.
  - Lexington adopted the [Municipal Opt-in Specialized Code](#) (225 CMR 22.00 and 225 CMR 23.00) in March 2023. The code goes into effect January 1, 2024 and applies to all applications submitted after that date. The Specialized Code applies just to new construction.
  - Lexington passed a [fossil fuel free bylaw](#) in April 2023, which bans the use of fossil fuels in new construction and major renovations (with exceptions). The bylaw will go into effect in 2024 upon acceptance into the Commonwealth's [Municipal Fossil Fuel Free Building Demonstration Program](#).
- **Green Building Certifications.** Green building certifications include energy performance benchmarks that can help you achieve green building standards, such as net-zero energy.
    - [Passive House](#)
    - [Leadership in Energy and Environmental Design \(LEED\)](#)
    - [International Living Future Institute's Zero Energy](#)
    - [Enterprise Green Communities](#)
  - **All-Electric HVAC.** Cold climate heat pumps are a tested technology to heat and cool buildings year-round. They're more efficient than other heating systems, less expensive

to operate when compared with oil, propane and electric resistance systems, and can last longer than other heating and cooling systems. Learn more about the types of heat pumps and the associated financial incentives:

- [Air Source Heat Pumps](#)
  - [Variable Refrigerant Flow Systems](#)
  - [Ground Source Heat Pumps](#)
  - [Water Source Heat Pumps](#)
- **Net-Zero Buildings.** Lexington encourages developers to design net-zero buildings. Please consider the following when designing your building:
    - On-site renewable energy and storage
    - Orienting the building to maximize solar potential
    - Tight building envelope to prevent air leakage
    - Proper insulation to minimize energy loss
    - High-efficiency mechanical systems, including heating, cooling, and ventilation, and high-efficiency lighting and appliances
    - High-efficiency air or ground heat pump heating and cooling systems
    - Smart energy management systems

For more information about net zero energy buildings, visit the [Commonwealth of Massachusetts information page](#), [Built Environment Plus \(BE+\)](#), or [Architecture 2030 Palette \(Net-zero design tools\)](#).

- **Onsite Renewable Energy & Storage.** All developments in Lexington should maximize onsite renewable energy generation. Feasibility analysis should consider available incentives, structure orientation, tree canopy and shading, and the landscape. If onsite generation is not to be incorporated into the project, building codes may require making the building “solar-ready” so it can be added in the future. In instances when solar is not feasible, consider purchasing off-site renewable energy. Onsite energy storage systems can help reduce peak demand charges and make a building more resilient to power outages, and should also be considered.



**Electric Vehicle Charging Requirements.** Refer to Section [135-5.1.13.11](#) of Lexington’s Zoning Bylaw and [225 CRM 22.00 and 23.00](#) and the [2021 IECC](#) for electric vehicle charging requirements in Lexington.

## INCENTIVES & SUPPORT

- **Mass Save Construction & Renovation Support.** Eversource (a Mass Save Sponsor) can help you optimize your energy use and incorporate energy systems that minimize carbon emissions with comprehensive incentives and technical support. Savings are maximized if you engage with Eversource as early as possible in design. [Learn more.](#)
  - [Path 1:](#) Net Zero and Low EUI Buildings (10,000 sf or greater)
  - [Path 2:](#) Whole Building Energy Use Intensity (EUI) Reduction Approach (50,000 sf or greater)

- [Path 3: High Performance Buildings](#)
- **Other Mass Save Incentives**
  - [All-Electric Home Incentive](#)
  - [Passive House Incentives](#)
  - [Residential Renovations and Additions Incentives](#)
  - [Business Rebates and Incentives](#)
- **Federal Financial Incentives.** The federal Inflation Reduction Act established tax credits for the installation of clean energy technology. A direct pay option is available for tax-exempt entities. Refer to the [White House webpage](#) for the available incentives.
- **Electric Vehicle Charging Incentives.** Eversource has a program to pay for the associated infrastructure costs of EV charging, including infrastructure needed to be “EV Ready.” Please consult with Eversource to determine if any installation costs could be covered through their [program](#).

## TO KNOW AFTER CONSTRUCTION

- ★ **Building Energy Use Disclosure.** Lexington has a [Building Energy Use Disclosure \(BEU-D\)](#) bylaw that requires all owners of buildings over 25,000 square feet to annually disclose their energy and water usage to the Town for inclusion in a public report.
- **Community Choice Electricity Aggregation.** [Lexington’s Community Choice Program](#) is the Town’s electricity aggregation program that provides electricity from renewable sources and long-term, stable electricity prices. While savings cannot be guaranteed compared to Eversource, the program’s prices have historically remained below Eversource’s, making technology like heat pumps even more financially favorable for building operators.

## OTHER SUSTAINABILITY FEATURES

This guide is not comprehensive in covering the ways developers could chose to incorporate sustainability into the design, construction, and operation of buildings. Other sustainability features are encouraged and will be seen favorably by the Town. Examples include, but are not limited to:

- Water-efficiency measures
- Native vegetation
- Green roofs
- Reused, recycled, and low-carbon materials
- Accessible bike and pedestrian infrastructure
- Minimizing vehicle trips

## QUESTIONS YOU MAY BE ASKED DURING DESIGN REVIEW

- What is the expected type of heating system(s)?
- What is the expected type of cooling system(s)?
- What is the expected type of hot water system(s)?
- Is it expected to be an all-electric building?
- Are any green building certifications being pursued (e.g. Passive House, LEED, Living Building Challenge)?
- Will this project include onsite renewable energy generation?
- Will this project include any on-site energy storage systems?
- Will this project leverage Mass Save incentives and/or technical support?
- What measures will be taken to optimize building envelope performance (including roof, foundation, walls, and window assemblies)?
- How has the design team integrated energy performance into the building and site design and engineering (orientation, massing, mechanical systems, envelope, etc.)?