

Green Roof Policies

This flyer is one in a series about green roofs, developed by an Ohio University green roof committee. Information about green roofs and the variety of benefits they offer can be found on our [website](#).

Public policies are essential to expanding green infrastructure, such as green roofs. Green roofs provide a variety of benefits, but are more expensive to build and maintain than conventional roofs. Recognizing the public benefits of green roofs, however, local governments are taking action to increase the number of green roofs within their jurisdiction. Three approaches are most common: regulations affecting new buildings and retrofits, financial incentives, and educational campaigns.

Government Regulations

Regulations have been established to maximize the extent of green roofs to optimize stormwater retention and heat attenuation in urban areas. Federal [regulations](#) on managing stormwater and pollution encourage the use of green infrastructure, such as green roofs, to improve water quality. Municipalities can regulate design and construction of green roofs (soil depth, size, plant choices) to ensure their effectiveness.

Regulations are in place for at least 11 North American cities, including:

Chicago, Illinois

- The [Sustainable Development Policy](#) requires that new, major development projects choose from a variety of design strategies, including green roofs or certification options, such as LEED. More than 500 green roofs and 5 million square feet of living rooftops have been installed in the city of Chicago.

New York City, New York

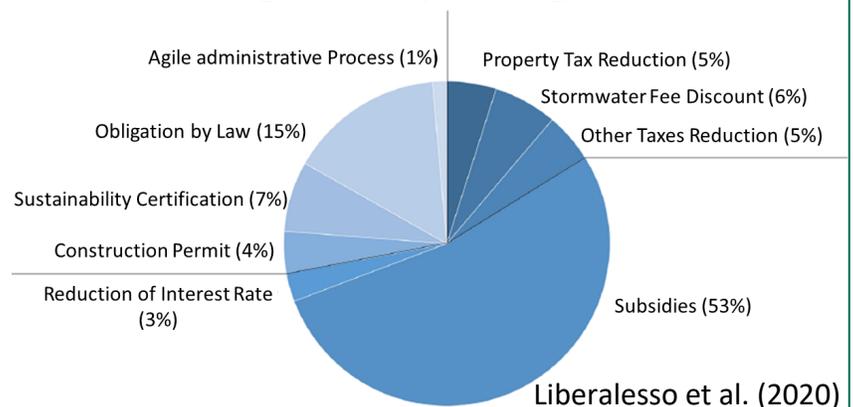
- Local [laws](#) passed in 2019 amended existing building codes to require that most major renovations or new building construction include rooftops that are planted and/or contain solar photovoltaics.

Washington, DC

- New buildings and extensive renovations, with exceptions for single-family homes and other cases, must be constructed with sustainable [landscape features](#), such as a living roof. If a green roof is included, it must contain at least five species and have 80% plant coverage within two years.

Worldwide, regulations and incentives encourage the adoption of green roofs.

A survey of cities across the globe revealed 143 different types of policies in nine categories (right). Subsidies made up 53% of all policy types worldwide (23% in North America) and obligations by law, 15% of policies (18% in North America). For detailed information by continent, read the review by Liberalesso et al. (2020)



Green Roof Incentive Policies

Local governments establish financial and regulatory incentives to encourage investment in green roofs and alleviate capital investment. Costs incurred by private building owners may be difficult to recoup. Incentives are offered in the form of tax credit and rebates, increased loan access for building, refunds for development fees, expedited permit processing, payments from energy efficiency programs, stormwater fee discounts, public grants and more (GRHC 2019). Builders may also receive special construction permits and sustainability certifications that set them apart from other buildings (Liberalesso et al. 2020).

Incentives that have jumpstarted or increased installation of green roofs include:

Green Roof Tax Credit: Philadelphia, Pennsylvania

- Businesses can claim a tax credit for 50% of the construction costs of installing a green roof, up to \$100,000. The green roof plan and final installation must be approved and inspected by the Dept. of Licenses and Inspections. Philadelphia [Dept. of Environmental Protection](#) recognizes the value of living roofs in reducing and cleaning stormwater runoff, extending the life of a roof, and improving heating and cooling efficiency.

Green Roof Rebate Program: Nashville, Tennessee

- Private property owners earn a credit of up to \$10 per square foot of a new green roof toward their sewer charges for up to 5 years. Owners must live in the area with a combined sewer and rain system, which can lead to sewage overflows. Green infrastructure reduces these events.

Save the Rain Green Improvement Fund (GIF): Syracuse, New York

- Grants support green infrastructure development in or around public buildings. The goal is to protect Onondaga Lake by reducing pollution carried by rain from impervious surfaces. One funded [project](#) was a green roof on a community center which captured 183,00 gallons of water per year.

Property Assessed Clean Energy Program (PACE) Financing

- Financing is provided for improvements to residential or commercial properties for water conservation or energy efficiency. Loans are connected to the property and can be passed on to a new owner after a sale, reducing the risk of costs associated with capital improvements, such as green roofs. This is a national initiative but states pass legislation to authorize funding in their cities and towns.



A crane lifts materials for a new green roof on Schoonover Center. Installation was funded through grant writing.

ADDITIONAL RESOURCES

- Green Roof and Wall Policy in North America. 2019. Regulations, Incentives, and Best Practices. [Green Roofs for Healthy Cities](#) (GRHC).
- Some regulations require that design and construction teams include an accredited [Green Roof Professional](#).
- Government agencies such as the U.S. General Services Administration ([GSA](#)), the [U.S. EPA](#), the U.S Department of Energy ([DOE](#)), and [NASA](#) have conducted research on green roofs.

For more information please visit:

www.ohio.edu/sustainability/schoonover-green-roof-project



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