



SENECA

**Loss Prevention
Presents**

Electric Bikes
A Growing Threat to Urban
Commercial Properties

In recent years, there has been a significant increase in the use of electric bikes (e-bikes) in metropolitan areas. These bikes are considered a sustainable and efficient mode of transportation that can reduce traffic congestion and lower carbon emissions. They are also extremely popular transportation methods for gig economy workers in cities, where speed and maneuverability are important to maximizing delivery speeds. However, their integration into city life brings about unique challenges, especially concerning commercial property fire safety. As electric bikes (e-bikes) become more popular, the risks associated with their lithium-ion batteries have become a pressing concern for property owners and insurers, resulting in **financial losses from claims and property/liability rate increases**.

Commercial P&C Exposures

Lithium-ion batteries, the power source for most electric bikes (e-bikes), pose significant fire risks if damaged, improperly charged, or exposed to high temperatures. This can lead to the batteries catching fire or exploding, posing a severe threat to individuals and causing significant property damage.

According to the FDNY, batteries in NYC accounted for 267 fires in 2023, causing 18 deaths and 150 injuries. Lithium-ion batteries are the leading cause of fatal fires in the city.

As these batteries store more energy and burn hotter than standard batteries, they are incredibly challenging to extinguish, and losses continue to develop nationally. In 2023, a Florida woman was killed inside her docked yacht after an electric bike (e-bike) battery ignited a fire. Earlier that year, an electric bike (e-bike) fire in a San Francisco apartment injured five people, with at least one person leaping to safety from a second-story window. Using cheap batteries, mismatched chargers, overuse, and poor servicing further heightens these risks.



Loss Prevention Strategies

As electric bikes (e-bikes) become increasingly prevalent in cities, businesses must adopt comprehensive strategies to mitigate the associated risks, particularly in relation to property insurance. Implementing targeted measures ensures compliance with local regulations and significantly reduces potential liabilities.

Implementing Safety Protocols

- Training staff and informing tenants about handling and storing electric bikes (e-bikes) is crucial. This includes using only approved batteries and chargers, adhering to the manufacturer's guidelines, and conducting regular maintenance checks.
- Be sure to utilize batteries with Underwriters Laboratory marks, which show that they have been safety tested, and avoid mismatching chargers, which are a common contributor to battery fires.

Regular Risk Assessments

- Regular risk assessments can help identify potential hazards associated with electric bike (e-bike) usage within commercial properties. These assessments should consider the location of electric bike (e-bike) storage concerning critical business assets and evaluate the adequacy of existing fire safety measures.
- This also includes ensuring a proper understanding of the manufacturer's instructions for charging and storage and the signs for battery degradation: unusual odor, damage to the exterior case, and leaking fluids. Electrolytes in the battery are combustible and can leak if the battery is broken, leading to spontaneous combustion.

Unmonitored and Overnight Charging

- It is important to exercise caution when charging electric bikes (e-bikes), particularly when leaving them unattended overnight. This is due to the potential risks associated with lithium-ion battery complications that can occur during the charging process. Therefore, it is highly recommended that electric bikes (e-bikes) be monitored closely during the charging process to ensure their safety.

The Evolving Legal Landscape Surrounding Electric bikes

The legal environment surrounding the use of electric bikes (e-bikes) in metropolitan areas is rapidly evolving as municipalities strive to accommodate these devices while ensuring public safety. Understanding these changes is essential for businesses and insurance providers to navigate liabilities and compliance effectively.

Cities worldwide are implementing new regulations to manage the growing number of electric bikes (e-bikes). These include speed limits, designated bike lanes, and specific parking zones (Miami Herald).



Navigating the Future with E-Bikes in Urban Landscapes

Incorporating electric bikes (e-bikes) in metropolitan areas presents a mixture of opportunities and challenges. While they offer a sustainable alternative to conventional transportation methods, reducing urban congestion and emissions, they also introduce new risks related to safety and liability.

For businesses, especially those in commercial property sectors, it is imperative to stay proactive in understanding these risks and adapting insurance policies accordingly. The increasing popularity of electric bikes (e-bikes) signifies the innovative spirit of urban development. However, it necessitates a vigilant approach to risk management and regulatory compliance.

To learn more about Seneca, speak with your local insurance agent or broker, or visit www.senecainsurance.com.



By adopting comprehensive safety measures, engaging in regular risk assessments, and staying informed about legal obligations, businesses can safeguard their interests and contribute positively to the burgeoning landscape of urban mobility. The dynamic nature of electric bikes (e-bikes) adoption demands continued attention and adaptation as urban centers evolve, and so will the strategies needed to manage the risks associated with new technologies. Embracing this challenge will be vital to ensuring that the benefits of electric bikes (e-bikes) can be enjoyed safely and sustainably.

About Seneca Insurance Companies

Seneca Insurance Companies are known for having a broad appetite in writing property risks. We offer both admitted and non-admitted ISO-based policies, with catastrophe perils offered based on location and risk characteristics.

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