

## **Abstract**

The architecture of a building directly correlates to the energy it consumes over its lifetime. Passive and active design strategies can reduce energy dependency if implemented properly. Daylighting and thermal mass are beneficial passive design strategies, where as ground source heat pumps, automatic venetian blinds, and electrochromic windows are possible implementations of active design strategies. While passive design is beneficial, only through active design strategies can a building have net-zero energy. The Bullitt Center, an experimental commercial office building in Seattle, WA, is attempting to reach net-zero energy through its utilization of the surrounding climate and its implementations of active design strategies. This paper will use the Bullitt Center as a case study to analyze the implementation of active design strategies to reach net-zero energy.