

Loudoun County Public Schools (LCPS) held a strategic vision to achieve something that had not yet been accomplished within the County schools a perfect 100 design score as part of the Environmental Protection Agency's "2021 ENERGY STAR Decarbonize Your Design Challenge". It was important as a baseline that Hovatter Elementary achieve Designed to Earn the ENERGY STAR because it signals to the market that the project is intended to perform in the top 25% of the nation's most energy efficient schools - demonstrating LCPS's commitment to ENERGY STAR, as a valuable resource for industry benchmarking as well as design guidance.









EARN THE

Estimated Energy / CO<sub>2</sub> Reduction

67.8%

**ENERGY STAR Design Score** 

100





• 561 kW roof-mounted photovoltaic solar array, used to produce an estimated 690 MWh/yr

• An HVAC design that incorporated VAV air handling units with advanced control strategies and a high-efficiency, variable speed chiller and high-efficiency condensing boilers

**Passive Design** 

• Building and envelope optimization, including enhanced thermal envelope and site layout for increased daylight and less glare in learning spaces • Carefully-shaded windows along the building perimeter, clerestory, provide natural daylight to learning and gathering spaces

**Renewable Energy** 

CO<sub>2</sub> monitoring and increased ventilation with fresh air

**Estimated Total** Annual Energy Use 4,482,501 kBTU/yr