

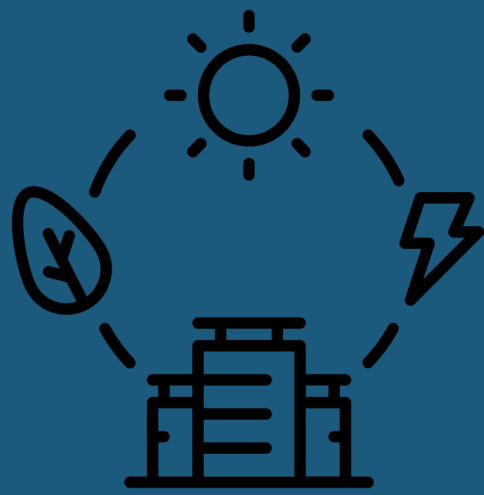
NET-ZERO ENERGY

FAQs for Maryland's K-12 Schools

The US Department of Energy's definition of Net-Zero Energy (NZE) buildings states that they generate sufficient renewable energy to cover their annual energy needs, thereby minimizing nonrenewable energy usage.

WHAT ARE NZE SCHOOLS?

A net-zero energy design school is an educational facility engineered to balance its energy consumption with energy produced on-site over a year. This balance is achieved through energy-efficient design, sustainable operations, and energy from renewable energy sources.



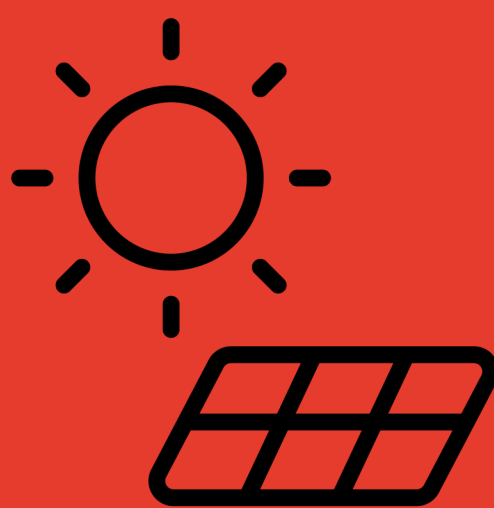
HOW DO NZE SCHOOLS HELP SUSTAINABILITY?

NZE schools reduce greenhouse gas emissions, conserve resources, and provide education on renewable energy and sustainable practices, helping to model responsible energy use for the community and Maryland's next generation.



WHAT KINDS OF TECH DO NZE SCHOOLS USE?

NZE buildings use a mix of technologies including solar panels, geothermal systems, energy-efficient HVAC systems, and smart energy management systems. Passive design strategies like optimized insulation, natural lighting, and thermal mass are also key components.



WHAT ARE THE EDUCATIONAL BENEFITS?

Students benefit from an immersive learning environment that emphasizes STEAM (science, technology, engineering, the arts, and math) through the practical application of sustainability and renewable energy technologies. These schools instill a sense of environmental responsibility, preparing students for future challenges in a sustainable world.



IS NZE DESIGN ONLY FOR NEW CONSTRUCTION?

No! Existing schools can also take advantage of NZE initiatives. Retrofitting existing buildings to improve thermal performance, upgrading to energy-efficient systems, integrating renewable energy sources, and eliminating fossil fuels are all viable steps toward achieving net-zero energy in an existing school.



HOW DOES MEA SIMPLIFY NZE SCHOOLS FOR LEAS?

The major hurdles include the initial cost, the need for specialized knowledge, potential interruptions during the retrofitting of existing buildings, and the challenge of ensuring that renewable systems are aptly sized and integrated to meet the school's energy needs. See below for more details how MEA can help.



**FOR MORE INFORMATION, CONTACT MEA:
SCHOOLS.MEA@MARYLAND.GOV.**

The Maryland Energy Administration (MEA) and the Interagency Commission on School Construction (IAC) have jointly launched the FY24 Decarbonizing Public Schools Program, with the aim of assisting Local Education Agencies (LEAs) in enhancing their energy data management, reducing greenhouse gas emissions, and promoting clean and efficient energy usage in K-12 schools and facilities. This program, supported by approximately \$20 million from the Strategic Energy Investment Fund and Alternative Compliance Program, will provide grants for various initiatives, including energy data management, net-zero energy designs, solar installations, and energy efficiency upgrades.