

LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN

The Energy Innovation Center was designed and built as a state-of-the-art sustainable facility, fostering collaboration, education and advancement in energy technologies. The design and construction team have worked with the Energy Innovation Center to target LEED Platinum Certification, one of the highest standards of sustainability and energy efficiency.



The US Green Building Council's LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED) program is a rating system for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions. LEED certification provides independent, third-party verification that a building, home or community was designed and built using strategies aimed at achieving high performance in key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

Project Team

Architect	DLA+ Architecture & Interior Design
MEP Engineer	CJL Engineering
Civil Engineer	Gateway Engineers
Landscape Architect	Klavon Design
Commissioning	eCAP / Integrated Services & Consultants, Inc.
Contractor	Mascaro Construction
Sustainability	evolveEA



The mission of the Energy Innovation Center is to contribute to socially responsible workforce development, foster energy and sustainable technology advancement, and assist in job creation through a commitment to diversity, innovation and comprehensive education.

Energy Innovation Center, the region's corporations, research universities, economic development organizations, and the U.S. Department of Energy's National Energy Technology Laboratory have collaborated to develop this new Center in order to help transform the nation's energy systems to achieve improved national security, competitiveness, and environmental stewardship.

Designed and equipped by corporate partners, this 6.6 acre urban complex promotes energy-sector research and innovation while creating direct and deliberate bridges to job creation, entrepreneurship and urban economic revitalization. The energy technology innovation cluster in the Pittsburgh region has a promising future. World-class capacity exists here in areas ranging from carbon management to nuclear reactor design, wind turbine manufacturing, materials and sensors, electric power distribution and control, shale gas production, district energy, green building and advanced building systems.

ENERGY INNOVATION CENTER
1435 Bedford Avenue, Pittsburgh, PA 15219
EICinstitute.org

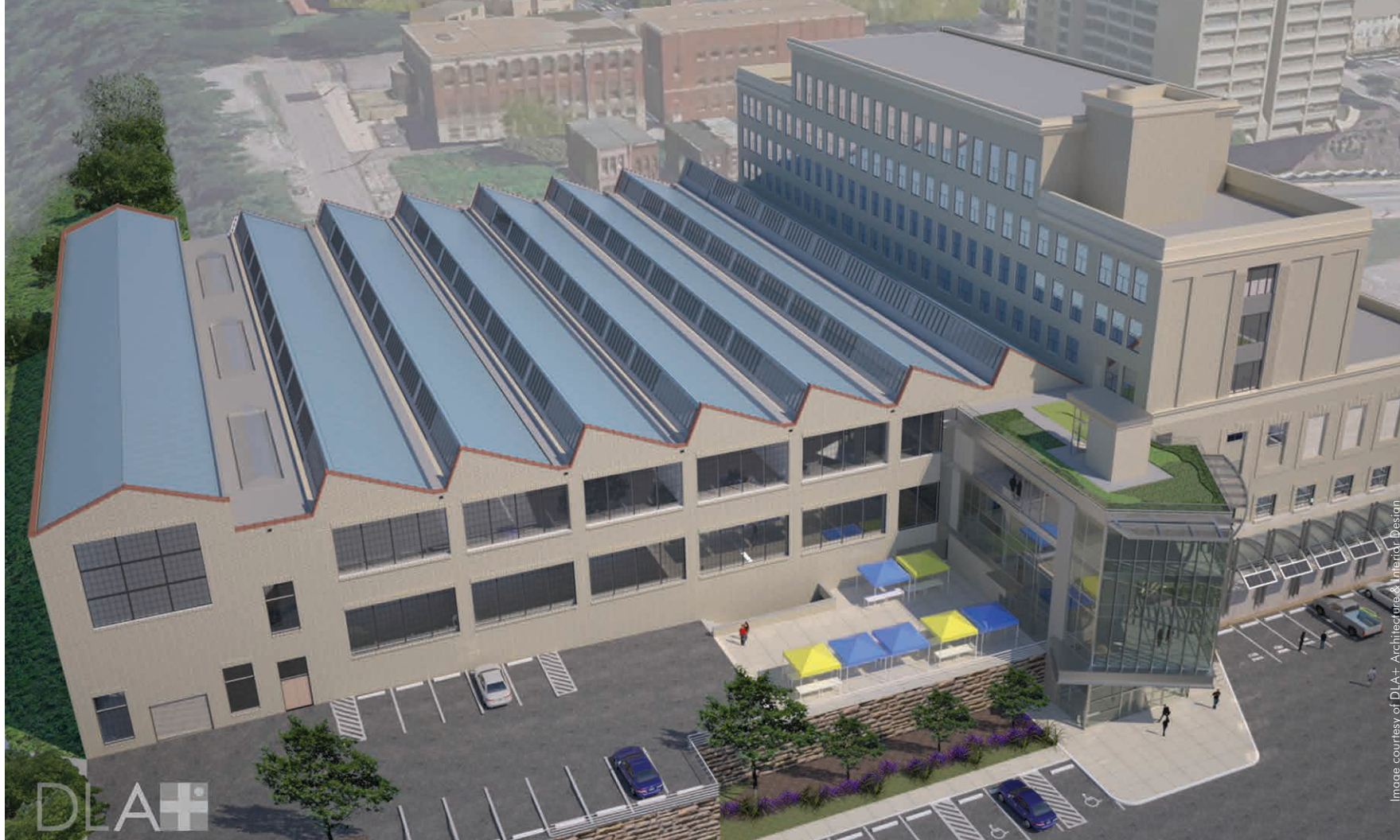
brochure by evolveEA, a LEED Proven Provider
Photos courtesy of DLA+ Architecture & Interior Design, by Jim Schafer Location Photography



The Energy Innovation Center honors Pittsburgh's industrial legacy by reinventing a prominent historic building to exemplify the highest standards for sustainability. This is the first building designed to meet Pittsburgh's 2030 District guidelines for energy and water efficiency.

A Model of Energy Efficiency

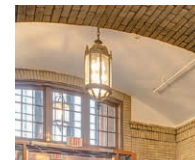
- Modeled to save over 50% in energy costs compared to a conventional building of similar scale
- Ice storage produces and stores ice overnight to deliver free cooling when it is needed in the daytime
- An absorption chiller reuses heat released from other machines to power a cooling process
- Automatic zoned control system improves occupant comfort, and reduces energy consumption and cost through the efficient operation of building systems
- The original building features a north-oriented sawtooth roof that provides copious daylight to the interior spaces while minimizing glare
- The lighting power density is very efficient due to LED lighting, occupancy sensors and photocell controls
- The project utilized an integrated design and engineering process to innovate the best possible design solutions
- The facility contends for national prominence as a training and research center in system optimization



daylighting



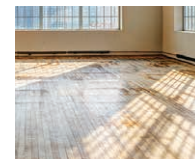
ice storage



historic preservation



visible systems



reused materials

Smart with Water

- The site was designed to reduce storm water runoff by over 35% and treat 80% of total suspended solids on site
- Native and adaptive plantings eliminate the need for artificial irrigation
- The permeable parking lot directs storm water underground for capture, removal of suspended solids, and infiltration
- Water fixtures are designed to save over 40% of the water used in conventional buildings of similar size and use

21st Century Transit Hub

- Site considerations and the building's proximity to Downtown Pittsburgh encourage public transit, cycling, carpooling, and low emitting, high occupancy vehicles
- The campus has access to Port Authority Transit, including Bus Rapid Transit, and the light rail downtown
- Bicycle storage and changing rooms are provided
- Adjacent to a forthcoming bicycle path
- Priority parking is provided to low-emitting and fuel-efficient vehicles being placed closest to the entrance
- A charging station for Electric Vehicles will be phased in

Indoor Environmental Quality

- The building design meets high standards for ventilation and thermal comfort
- Over 75% of spaces have views to the outside, and abundant natural light also helps create a healthy indoor environment
- Air is monitored and ventilation is adjusted by CO₂ sensors

Sustainable & Healthy Materials

- Low-emitting paints, sealants, adhesives, coatings, flooring and composite wood help ensure a healthy environment where harmful vapors are kept to a minimum
- As many existing materials as possible have been reused in order to avoid the environmental impact of extracting and transporting new materials