

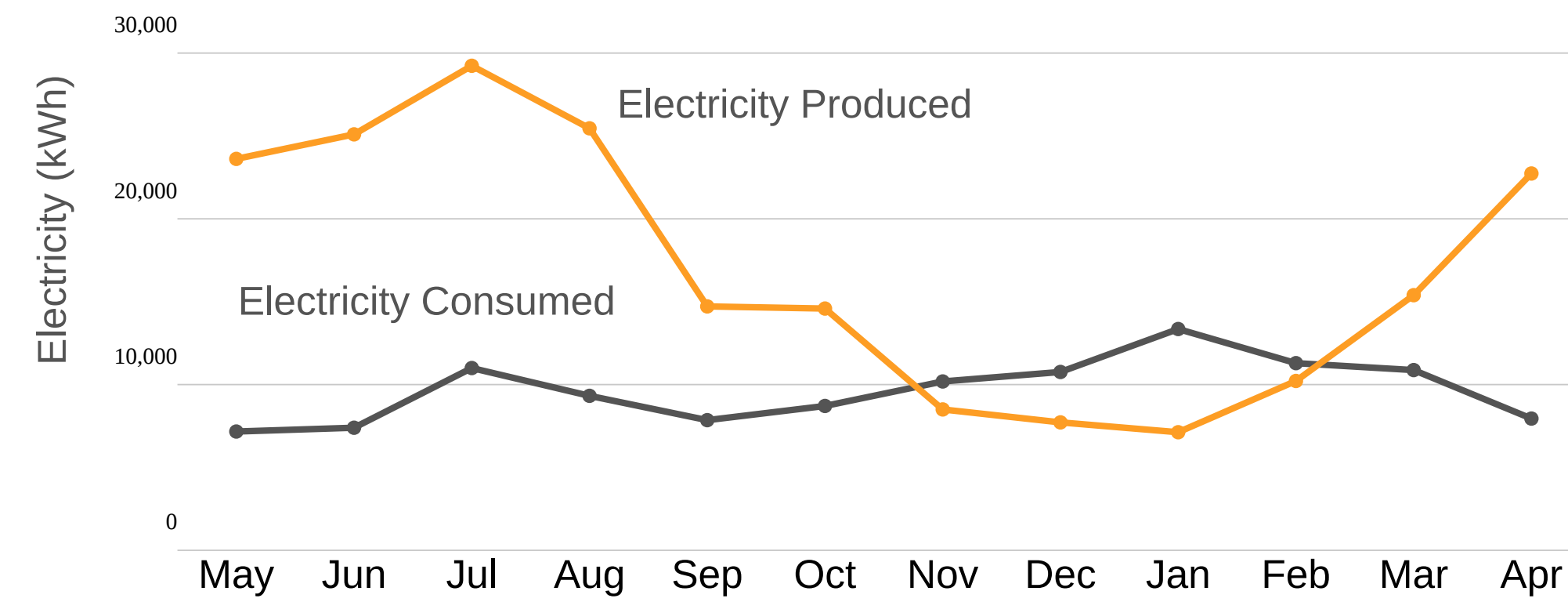
MILLERSVILLE UNIVERSITY'S ZERO ENERGY BUILDING CREATES POSITIVE ENERGY FUND

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GENERATING POSITIVE ENERGY

Built in 2018, Millersville University's Lombardo Welcome Center is Pennsylvania's first certified zero energy building. In its first year, the Lombardo Welcome Center generated 75 percent more energy than it used (Net EUI: -19 kBtu/sf), making it one the most positive energy buildings in the country.

THE LOMBARDO WELCOME CENTER IS THE FIRST CERTIFIED ZERO ENERGY BUILDING IN PENNSYLVANIA.



EMPOWERING STUDENTS

In the Spring of 2019, Millersville used utility rebates and cost savings associated with the Lombardo Welcome Center to establish the Positive Energy Fund, which provides micro-grants for faculty, staff and student projects that contribute positively to local communities using the Global Goals framework. Millersville awarded \$10,000 in grants on Earth Day 2019.

AWARDED \$10,000 IN MICRO-GRANTS TO SUPPORT STUDENT WORK THAT ADVANCES THE GLOBAL GOALS FOR SUSTAINABLE DEVELOPMENT.



LOMBARDO WELCOME CENTER SUSTAINABLE FEATURES



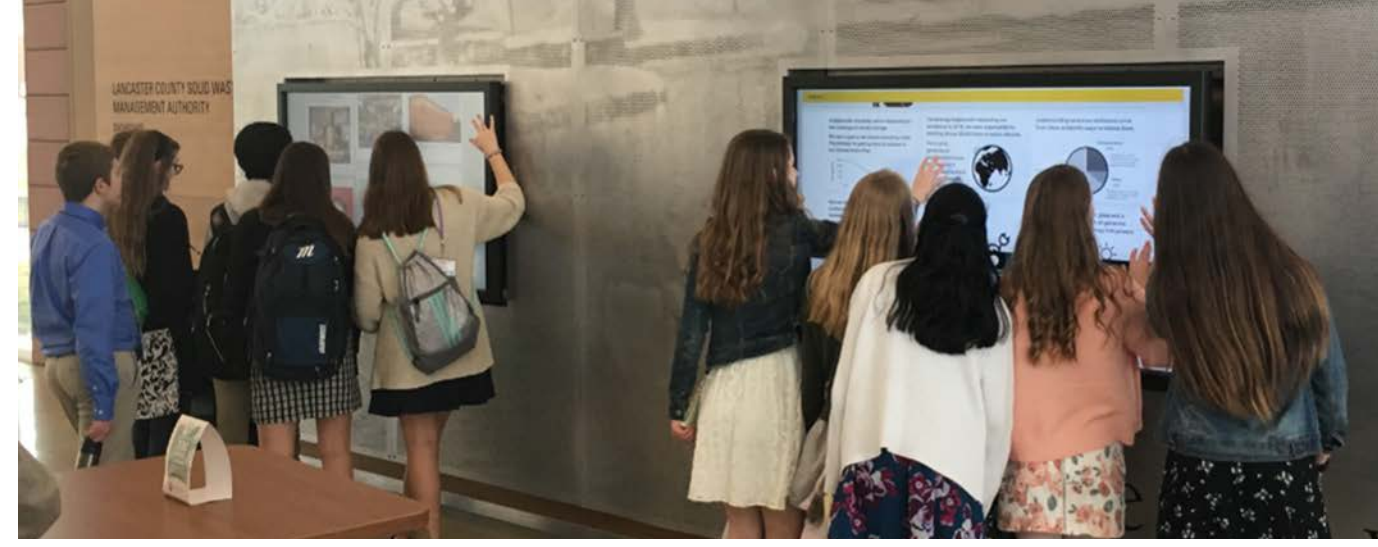
- 500+ solar panels
- 20 geothermal wells (closed loop system)
- Solar glass
- Solar tracking array
- Highly insulated exterior envelope
- 15,760 sq ft

- 70% more efficient than average university building
- 25 kBtu/sf
- Lobby thermally broken, double-paned glass curtain wall
- Low-e glass with 20-80% frit pattern



- 3 rain gardens
- Native plants
- Cradle to cradle certified furniture
- East-west orientation of long building axis for solar gain and natural daylighting
- Occupancy and daylight sensors

- Solar shades
- Passive heating and cooling
- 20 HVAC zones
- Energy efficient lighting (LED and daylight)
- Energy efficient, concrete radiant heating floor



- Centrally-located Energy Star equipment and appliances
- 350 metering points
- Low-flow plumbing fixtures
- Solar analysis for optimal window locations

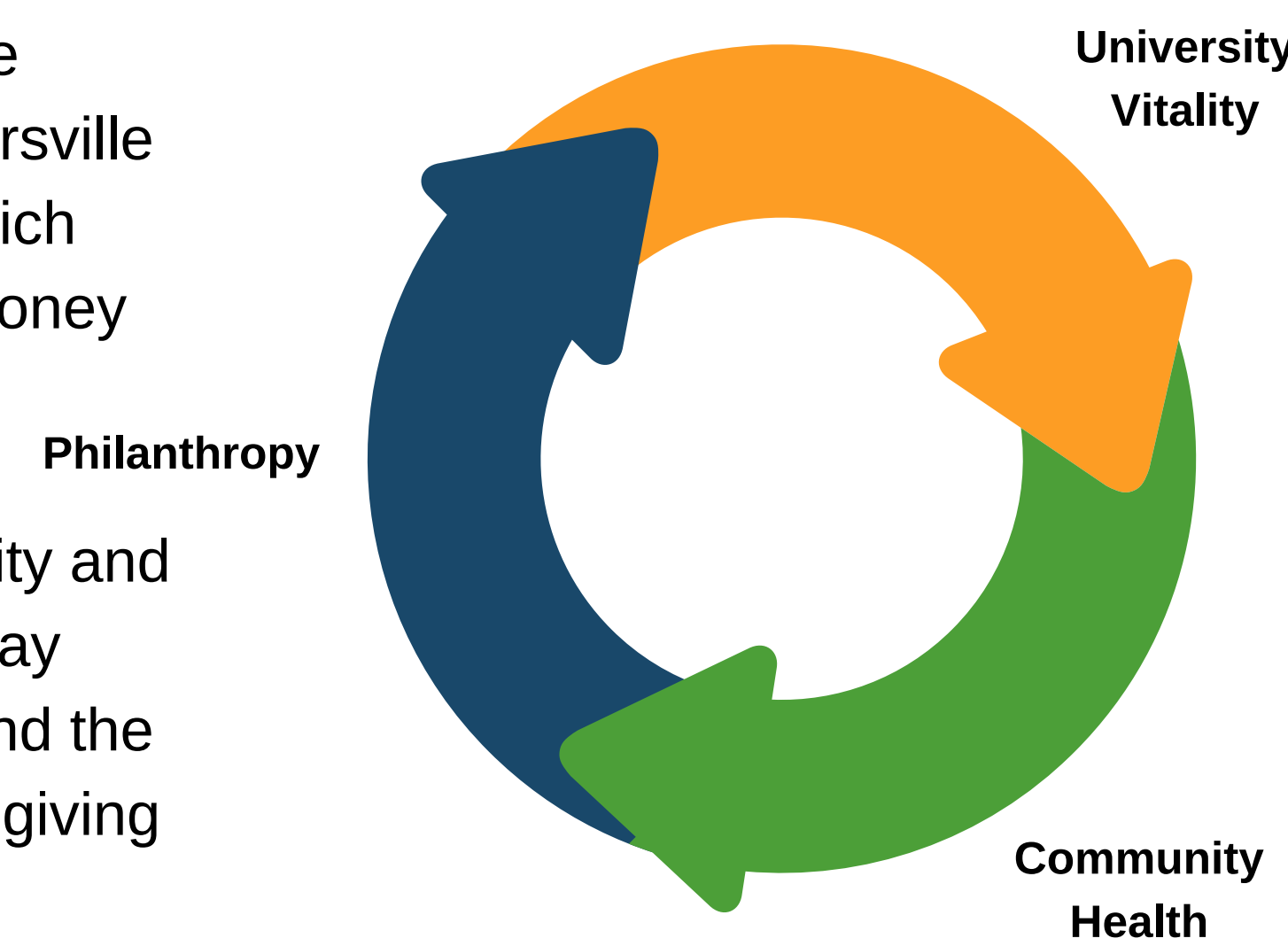
- 13,000+ annual visitors
- Sustainability-focused events
- Course connections
- Interactive dashboard shows real-time building energy use.
- Organizes majors by the Sustainable Development Goals.



CREATING A VIRTUOUS CYCLE

Philanthropic giving that helped fund the Lombardo Welcome Center saves Millersville money through avoided utility costs, which Millersville pays forward by using the money to fund student projects that advance community sustainability.

Those projects strengthen the community and raise Millersville's profile in ways that may inspire additional giving to Millersville and the community, creating a virtuous cycle of giving that increases community health and university vitality.



The Positive Energy Fund micro-grants awarded in 2019 will go to:

- Hold a green infrastructure workshop that connects student artists and engineering students with professionals.
- Create videos of community sustainability projects for social media.
- Install pollinator gardens at local elementary schools.
- Conduct a community resource drive to combat local hunger and poverty.

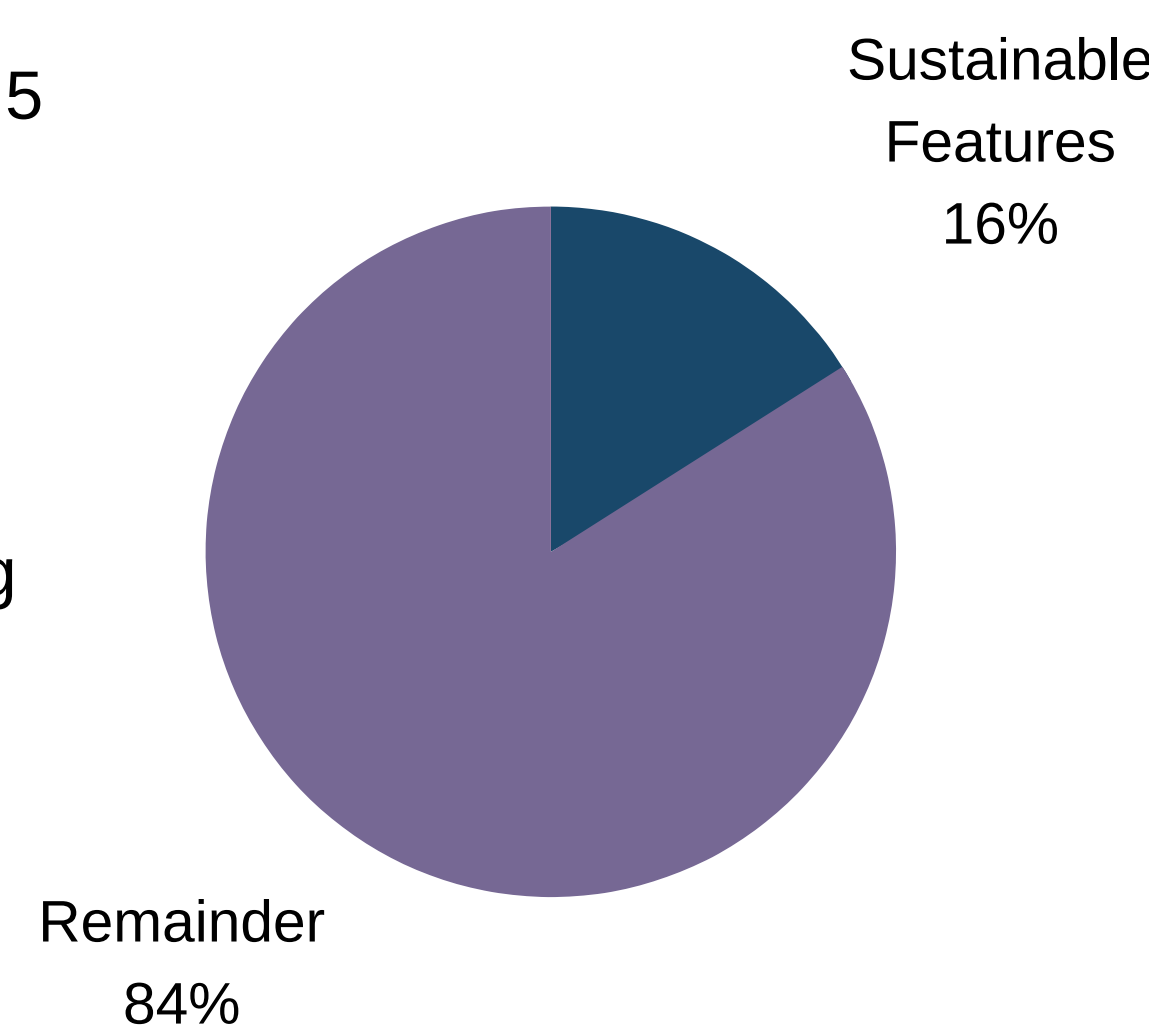


In 2019, Second Nature recognized Millersville University for climate leadership in cross-sector collaboration for the university's efforts to support the City of Lancaster with climate change response planning.

BUDGET AND COST SAVINGS

The total cost of the Lombardo Welcome Center was \$6.9 million. Approximately \$1.1 million of that cost covered the full cost of the "sustainable" materials, such as the solar panels (6.5%), lighting (4.6%), and geothermal system (4.9%).

Donors contributed \$1.5 million to support the building's sustainable features, effectively covering the building's energy cost and saving Millersville \$25,000 annually in avoided utility costs.



SUPPORTING THE COMMUNITY

Millersville University is taking a leadership role in the community, through Positive Energy Fund projects that directly improve community sustainability and through work to prepare a Climate Action Plan for the City of Lancaster under Second Nature's Climate Commitment.

IN 2019, MILLERSVILLE UNIVERSITY HELPED THE CITY OF LANCASTER COMPLETE ITS FIRST CLIMATE ACTION PLAN.

