Phoenix Contact and the All Electric Society

Phoenix Contact is focusing intensively on sustainable development, particularly in the areas of electrification, networking, and automation. The vision of an "All Electric Society" is reflected in all facets of Phoenix Contact’s portfolio of products, technologies, and solutions.

Phoenix Contact sees its role as empowering our customers and partners in the use of digitalization and electrification to stop global warming, protect the climate, and respect nature. Phoenix Contact aims to create an entirely climate-neutral value-added chain before 2030.

Notable environmental projects at Phoenix Contact USA:

- **Rooftop solar array (2021-22)**
  - Phoenix Contact installed a 961-kW solar array on the rooftop of its Logistics Center for the Americas.
  - The array will produce 30 percent of the electric needs at the site.
  - Phoenix Contact partnered with Gatter & Diehl Consulting Engineers and Terrasol Energies, Inc. to design the rooftop solar array.
  - Phoenix Contact designed and installed the monitoring portion of the system, which features numerous Phoenix Contact products.
  - The solar array consists of 2,185 SunPower photovoltaic panels with solar generation with maximum D.C. power of 961 kW.
  - Phoenix Contact received a total of $570,000 from two grants; the PEDA grant through PA Department of Environmental Protection and ACT 129 Grant from PPL Electric Utility to help fund the project.
  - Total investment was approximately $1.8 million. The net investment after grant and tax offset was about $725,000.
  - Phoenix Contact anticipates electric savings of $150,000 per year, including Solar Renewable Energy Certificates (SRECs).
  - The company estimates a return on its investment within four to five years.
  - The installation will reduce energy costs and reduce CO₂ emissions in the long term.

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• Parking spaces with electric vehicle charging (2015)
  o Eight parking stations are available for free to employees and to the public to charge electric and hybrid vehicles, which reduce fossil fuel usage.
  o This project was awarded the Pennsylvania Governor’s Award for Environmental Excellence in 2016.

• 1-megawatt Combined Cooling, Heating, and Power (CCHP) system (2014)
  o In 2014, Phoenix Contact installed a 1-megawatt Combined Cooling, Heating, and Power (CCHP) facility.
  o The system provides 65 percent of the facility’s energy needs and saves the company more than $300,000 annually.
  o The CCHP acts as a redundant power source and allows the facility to operate at full production during local blackouts. The CCHP is composed of five 200-kilowatt Capstone microturbines packaged in a single container, a 300-ton exhaust-fired absorption chiller, and a 5,000-BTU heat exchanger.
  o The microturbines are driven in direct proportion to the demand of the thermal requirements of the facility. The system microturbines are fueled by natural gas, a Pennsylvania-produced, cleaner-burning natural resource. The pollution prevention aspects of this project are directly realized at the utility power generation plant.
  o This project offsets the amount of fuel needed at the utility power plant. It utilizes the byproduct of heat usefully, in lieu of rejecting the heat directly to the environment as is typical in utility power plant electrical production.
  o This project was awarded the Pennsylvania Governor’s Award for Environmental Excellence in 2015.

• Solar-powered electric vehicle charging station (2013)
  o This off-grid, solar-powered, electrical vehicle charging station idea was initiated by Phoenix Contact and Elizabethtown College as a novel way to prove that electric vehicles could be recharged with solar power without burdening the electrical grid.
  o A solar canopy the size of a typical parking spot with 12 high-performance solar panels generates 2.7 kW and is supported with battery storage of 4 kW and a 4.2 kW off-grid inverter to charge electric vehicles.
  o This project was awarded the Pennsylvania Governor’s Award for Environmental Excellence in 2014.

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Behind-the-scenes initiatives

In addition to the large projects initiated around the campus, Phoenix Contact has implemented many environmental considerations behind the scenes to support company-wide sustainability goals:

- Improving our process to manage relevant legal and other requirements concerning the environment
- Improving the process and tools for identifying environmentally relevant aspects of our business operations, potential impacts, and mitigation plans
- Monitoring and supporting the rapidly evolving environmental product compliance requirements
- Improving the process to manage the life cycle of our hazardous chemicals
- Improving our ability to track and quantify the waste stream for our municipal, residual, and hazardous waste
- Ongoing recycling and reclamation efforts
- Monitoring and analyzing stormwater runoff from our property
- Working with the U.S. Dept. of Agriculture to mitigate nesting of the invasive spotted lanternfly on our property
- Improving air handling and filtration systems (COVID-19-compliant) to improve air quality throughout the Middletown plant
- Upgrading energy monitoring infrastructure throughout the Middletown plant
- Ongoing support and improvement of electric vehicle charging station infrastructure at the Middletown facility
- Recycling efforts totaling 129.94 tons of materials in 2021 (25.05 tons of commingled recycling, 43.76 tons of cardboard, 11.29 tons of office paper, 18.01 tons of metal recycling, 1.29 tons of batteries, 0.04 tons of fluorescent bulbs, 14.91 tons of cable/wire, 13.79 tons of plastic, 1.38 tons of E-wastes)
- Reducing the hazardous waste processed by 25 percent (for two consecutive years: 2020 and 2021)
- Meeting our goal of zero waste to the landfill by processing residual waste at the Harrisburg Incinerator for Energy Recovery
- Communicating with mutual aid partners regarding chemicals at our facility
- Supporting programs to educate youth, prospective engineers, and technicians about clean, renewable energy technology and its benefits


About Phoenix Contact

Phoenix Contact is a global market leader based in Germany. Phoenix Contact produces future-oriented components, systems, and solutions for electrical controls, networking, and automation. With a worldwide network reaching across more than 100 countries with over 20,300 employees, Phoenix Contact maintains close relationships with its customers, which are essential for shared success. The company’s wide variety of products makes it easy for engineers to implement the latest technology in various applications and industries. Phoenix Contact focuses on the fields of energy, infrastructure, process, and factory automation.

For more information about Phoenix Contact or its products, visit www.phoenixcontact.com, call technical service at 800-322-3225, or email info@phoenixcontact.com.