

Carpe Vigorem

"Seize the Energy"

in education and our communities

Winter 2014

Consumers Energy
Count on Us



Consumers Energy goes to schools.



Our Promise

Consumers Energy's commitment to its customers starts at an early age.

AFTER ALL, first impressions are critical in any relationship. And whether it's employees volunteering their time, instructors teaching them to stay safe around energy or providing millions of dollars to support their education and development—Consumers Energy has been there for children for more than 125 years.

"The goal of this important investment has always been the same: to produce well-educated adults who will not only be our future

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STEM Graduates Critical to State's Future

CONSUMERS ENERGY RECENTLY helped sponsor a summit that brought academic and industry leaders together to discuss the future of science, technology, engineering and math (STEM) professionals in the state.

With an expected shortfall of nearly 274,000 STEM positions within the next five years, Gov. Rick Snyder spoke to the more than 500 in attendance at Saginaw Valley State University about the importance of Michigan high schools and colleges producing more STEM graduates.

"These are great jobs that will help bolster Michigan's economy," Snyder said.

Cindy Westerhof, Director, People Services and Talent Acquisition at Consumers Energy, said anything the company can do to encourage and work with the state to come up with solutions on filling the talent gap is time well spent.

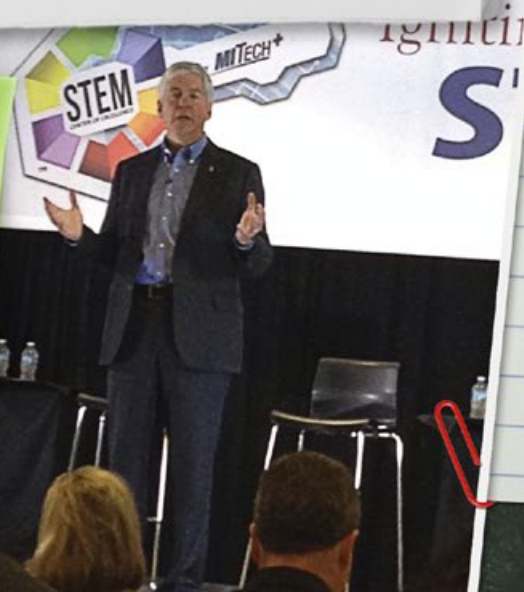
"The key is to get and keep young people interested in math and science at the primary and secondary level, so they will go on to pursue degrees in these fields," she said.

That's why the company is a big supporter of events like the October STEM summit along with other STEM programs like FIRST

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Future recruitment of employees could be impacted by a projected shortfall of nearly 274,000 STEM professionals within the next five years.

Gov. Rick Snyder spoke to the more than 500 academic and industry leaders in attendance.



"Green Customer of the Year" inside



Teaching Value

Consumers Energy Green Customer of the Year:
Kalamazoo College

KALAMAZOO COLLEGE'S sustainability efforts netted the school the Consumer Energy's Green Generation Customer of the Year. "Sustainability is a strong focus at Kalamazoo College. Receiving this award lets us know that others recognize our commitment to the environment and that gives us reason to be proud," said Paul Manstrom, Kalamazoo College's associate vice president for facilities management.

standards developed by the U.S. Green Building Council, and we've found that participating in Green Generation has been a great fit for us."

Kalamazoo College has been a Green Generation participant since July 2009 and is one of the Top 10 purchasers in the Green Generation program.

Past Green Generation customer of the year recipients are Irwin Seating, Grand Rapids Community College, University of Michigan - Flint, Dow Corning, City of Grand Rapids, and Wolverine Worldwide.

"We completed a project in 2008 to renovate the Hicks Student Center here on campus to



Kalamazoo College students enjoy a walk through campus.

Fun Fact: Michigan is the 14th windiest state in the country.



STEM Graduates Critical to State's Future from front page

Robotics for middle and high school students. "It's a proven way to get students actively engaged in seeing how studying these subjects can lead to exciting and fun work," Westerhof said.

For more information on the October STEM summit, visit: www.stemsummit.mitechplus.com

100 full-time professors at Kalamazoo College

1,450 students at the liberal arts college located midway between Detroit and Chicago

17,500 customer-participants in G2 program

60,000 annual savings from renovations

720,000 kilowatt-hours (kWh) of renewable energy the college purchases annually from Consumers Energy, about eight percent of the college's total electrical usage

2,500,000 kWh of renewable energy the college has purchased since enrolling in G2 program

"Receiving this award lets us know that others recognize our commitment to the environment and that gives us reason to be proud."

- PAUL MANSTROM
Kalamazoo College
associate vice president for facilities management

Kalamazoo College's recently renovated Hicks Student Center.



The 53-foot long box semi-trailers will be staffed during storm deployment.

Reconnecting Our Communities

Mobile storm units speed service restoration

CONSUMERS ENERGY has stationed three new mobile storm units across Michigan to help crews restore power more quickly after damaging storms.

The 53-foot long box semi-trailers will be staffed during storm deployment by company storeroom personnel and are ready to roll out with short notice. The units are equipped with items most often needed for storm work: cross arms, insulators, coils of wire, hardware and other equipment.

Strategically located in Grand Rapids, Jackson and Cadillac, the mobile storm units will be deployed to areas where powerful storms are forecast to hit, and will serve as staging areas for crews performing service restoration.

"Bringing the storeroom to the field will reduce travel and help our lineworkers involved in storm restoration focus on what they do best - making

repairs and getting the lights back on for customers safely," said Michele Kirkland, Consumers Energy's vice president of energy operations.

"This initiative will shorten outages and help us keep our Promise to provide reliable energy service for our customers." The mobile storm units were outfitted in Grand Rapids, and are being delivered to their home headquarters this week.

Reinforcing its commitment to Pure Michigan Business Connect, Consumers Energy hired Grand Rapids-based Giant Graphics to apply visuals to the units, which feature photographs of four Consumers Energy field employees in action.

For more information regarding Consumers Energy, go to: www.ConsumersEnergy.com or join us on Facebook at www.facebook.com/consumersenergymichigan.

Responding with Safety

EMPHASIZING safety is critical throughout our company's everyday activities, while focusing on fundamentals helps Consumers Energy meet customer demands quickly and efficiently.

A select group of employees educates and trains safety responders while also assisting customers.

Cathy Kelbey plays a unique role as a member of the Public Safety Outreach Team, which is made up of a select group of employees who educate and train safety responders while also assisting customers. She also is a volunteer firefighter with Albee Township.

What does the Public Safety Outreach Team do?

We are proactive in reaching out and educating groups that work around our systems and the hazards associated with them. We align with emergency officials to keep the public, company crews and emergency responders safe.

How important is training in your work?

We are working on new presentations for natural gas and electric so that the training we present to emergency officials and contractors provides the same consistent message. The more training we can provide, the better prepared we can be.

How does your work as a firefighter impact your work with Consumers Energy?

I have been on the Albee Township Fire Department for almost two years now. My job at the fire department has helped me to understand what they go through out on a scene, whether it is a fire, gas emergency or down wires.

What are your goals for the Public Safety Outreach Team in the future?

Our goal is to be able to educate the public, contractors, excavators and emergency officials who work around or near our gas and electric systems to keep themselves, the public and our employees safe.

Kathy Kelbey is a Consumers Energy employee and firefighter.....



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Our Promise from front page

customers but also potential employees," said Carolyn Bloodworth, the company's Director of Corporate Giving. "Our children have and always will be the key to our future."

The company contributed nearly \$1 million last year to organizations serving youth across Michigan.

The support included early childhood investments (literacy programs, child care scholarships and mentoring programs), employee volunteerism (sports and school-based activities) and direct grants for science, technology environmental, engineering and mathematics and investments in higher education programs.

Through the Consumers Energy Foundation's Volunteer Investment Program – available to employees and retirees – about 280 grants totaling more than \$160,000 were awarded to youth-serving organizations last year.

Consumers Energy prioritizes keeping children safe through its Respect the Flags and Hazard Hamlet programs. These free programs are designed to provide students with a better understanding of natural gas and electric safety.

In addition, over the last two decades nearly 350,000 Michigan students have watched Hazard Hamlet and Respect the Flags safety education programs to learn more about electric and natural gas safety.

Hazard Hamlet helps elementary school children identify electrical hazards in their homes and neighborhoods.

The Respect the Flags program teaches children the meaning and safety importance of colored flags that mark natural gas lines and other utility services. Children learn how to detect a natural gas leak and identify the six major steps to follow if a leak is suspected.

Additional emphasis is placed on learning about the role MISS DIG plays in public safety. Learn more about these programs at ConsumersEnergy.com/teachers.

Starting this spring, Consumers Energy will begin piloting its new Energy Education program, EmPOWERed Kids. This technology-based program will provide children with an interactive hands-on experience that will get them excited about energy and its role in our lives. Features include options for teacher-led presentations and a downloadable application for use in the classroom and at home.

EXPERIMENT

Static Electricity

WHAT YOU'LL NEED:

- 2 inflated balloons
- An aluminum can
- Your hair
- Woolen fabric

INSTRUCTIONS:

Rub the 2 balloons one by one against the woolen fabric, then try moving the balloons together, what happens? Are the balloons attracted to each other?

Rub 1 of the balloons back and forth on your hair then slowly pull it away. Ask someone to describe to you what is happening to your hair. If there's nobody else around try looking in a mirror.

Put the aluminum can on its side on a table, after rubbing the balloon on your hair again hold the balloon close to the can and watch what it does. Does it roll towards you or away from you? Now slowly move the balloon away from the can and observe what it does.

VOCABULARY:

Proton: the part of an atom that can be found in the nucleus that is positively charged (+)

Electron: the part of an atom that rotates around the nucleus and is negatively charged (-)

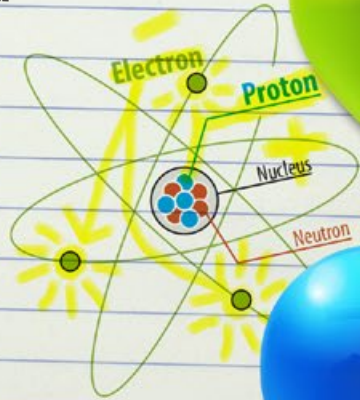
WHAT'S HAPPENING?

Rubbing the balloons against the woolen fabric or your hair creates static electricity. This involves negatively charged particles (electrons) jumping to positively charged objects. When you rub the balloons against your hair or the fabric they become negatively charged, they have taken some of the electrons from the hair/fabric and left them positively charged.

They say opposites attract and that is certainly the case in these experiments, your positively charged hair is attracted to the negatively charged balloon and starts to rise up to meet it. This is similar to the aluminum can which is drawn to the negatively charged balloon as the area near it becomes positively charged, once again opposites attract.

In the first experiment both the balloons were negatively charged after rubbing them against the woolen fabric, because of this they were not attracted to each other.

Adapted from www.sciencekids.co.nz/experiments/staticelectricity.html



CONTACT US

ConsumersEnergy.com/teachers
or email the education team at
education@ConsumersEnergy.com

When an electric charge builds up on the surface of an object it creates static electricity