

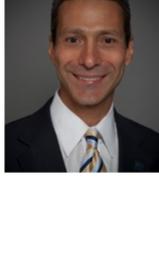
CENTER FOR ENERGY NEWS

A quarterly newsletter from the University of Pittsburgh Center for Energy

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FALL 2016

A Message From the Director



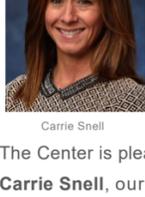
Greetings from the University of Pittsburgh Center for Energy, and welcome to our first quarterly newsletter! The past year has been an exciting time for us in the Center, which has included the addition of new personnel, research and educational program developments, community initiatives, new partnerships, facility and laboratory additions, and the recent establishment of the Energy GRID Institute.

In addition to welcoming our students back for the Fall term, and the various initiatives that the Center is leading across campus and throughout the community, we look forward to hosting the 11th annual [Electric Power Industry Conference](#) on November 14th and 15th, and the 11th annual [Nuclear Night](#) on November 16th. We invite you to join us for these and other events as they are announced.

I welcome you to learn more about these activities within the pages of this newsletter, and to also feel free to contact us at the Center at any time for additional information.

Dr. Gregory Reed
Director and Professor, Center for Energy and the GRID Institute
Swanson School of Engineering - University of Pittsburgh

Center for Energy Welcomes New Employees



Carrie Snell



Katrina Kelly



Michael Rooney



Wayne Honath



Danielle Ilchuk

The Center is pleased to welcome three new staff members, and announce other transitions:

Carrie Snell, our newest colleague, joined the Center in September as our new Administrative Assistant. Carrie is excited to join the Center for Energy after taking time off to raise her children. Her daughter is a third year student at the University of Michigan and her son is a junior in the Seneca Valley School District.

Katrina Kelly, Ph.D. joined us in September as the new Manager of Strategy and Business Development. Prior to joining Pitt, Katrina was project manager of the Financing Resilient Energy Infrastructure project at the World Energy Council in London, UK. While at the WEC, Katrina completed her doctoral research project at the University of Nottingham. Focused on energy economics and the broader market transition, Katrina joins the team to enhance the national visibility of the Center through increased industry cooperation and cross-University collaboration.

Michael Rooney joined the Center early this summer as Manager of District Energy Initiatives, and will work closely with the City of Pittsburgh, the Department of Energy, and the Energy Innovation Center. Michael recently earned his master's degree from the University of Pittsburgh Graduate School of Public and International Affairs. During this time, he interned at the Hillman Family Foundations. A Pittsburgh native, before returning in 2014, Michael spent time working for CARE's policy and advocacy team in both Washington, DC and Addis Ababa, Ethiopia.

Wayne Honath has worked with the Center and SSOE since 2012, supporting the Grid Technology Collaborative through the University Energy Partnership, and has transitioned to the role of Manager of Special Projects, Center for Energy. Wayne previously worked in the utility industry, specializing in distribution system reliability and regulatory reporting at Duquesne Light Company, and managed customer and partner relationships in the smart grid area for Tollgrade Communications.

The Center for Energy extends sincere thanks to **Danielle Ilchuk**, who served as our Administrative Coordinator for many years. Danielle recently accepted the position of Facilities and IT Coordinator for the Swanson School of Engineering. We congratulate Danielle on her promotion, and look forward to continuing to work with her in her new role.

Announcing the Pitt Energy GRID Institute



As part of our continuing work to expand energy-related facility and laboratory capabilities, we are proud to announce the establishment of the Pitt Energy GRID Institute at the Pittsburgh Energy Innovation Center, which draws together utility, industry, government and foundation partners to modernize energy infrastructure.

For more information, see our July 11th [Press Release](#).

District Energy Initiatives



The Center for Energy, serving as the principal technical partner on the City of Pittsburgh/U.S. Department of Energy NETL memorandum of understanding, has been leading efforts to design a 21st Century energy infrastructure for Pittsburgh. These activities have included collaborating with Duquesne Light Company on the feasibility and design of a microgrid installation, engaging industry partners such as NRG to provide input on a proposed district heating system in the Uptown/Lower Hill District neighborhood, and contributing to the City's efforts to secure federal funding streams. Other partners include Peoples Gas, regional foundations, and other community organizations.

The Center for Energy also hosted the City of Pittsburgh's Climate Action Plan workshop on October 3rd, 2016. The workshop drew local experts from the energy field in order to inform the next iteration of Pittsburgh's Climate Action Plan.

Pitt and Regional University Partners form the TrUE Alliance



The Tri-State University Energy (TrUE) Alliance was formed in April 2016, as a collaborative research effort between the University of Pittsburgh, Case Western Reserve University, Carnegie Mellon University, and West Virginia University. The individual university energy institutes and centers have joined forces to accelerate the innovations that are needed to address the challenges and opportunities currently facing the energy sector.

The universities have agreed to work closely to align their collective expertise for research, technology commercialization, and industry partnerships, in order to contribute more cohesively on Tristate regional development. The universities will work on their overlapping areas of energy research such as grid modernization, energy storage and oil and gas. True Alliance members will meet regularly to discuss mutual energy initiatives and activities, and to further explore potential collaborative opportunities across the four universities for faculty, research staff and students.

More information is available at [TrUE-Alliance.org](#)

Eleventh Annual Electric Power Industry Conference



The 11th Annual University of Pittsburgh Electric Power Industry Conference (EPIC) will be held on the 14th and 15th of November at the University Club on the Pitt campus. As our industry continues to advance towards grid modernization and address new challenges, we have selected a conference theme of "The Grid in Transformation."

We are also very pleased to announce that this year's conference keynote speakers will be Duquesne Light Company President and CEO, [Rich Riazzi](#) and Duke Energy Carolinas Region President, [Lloyd Yates](#).

The registration, schedule, and conference agenda can all be found on the [EPIC website](#).

Eleventh Annual Nuclear Engineering Night



The 11th annual Nuclear Engineering Night is scheduled for Wednesday, November 16th, at 6:30 PM in the William Pitt Union ballroom. Westinghouse CEO Jose Gutiérrez will serve as the 2016 keynote speaker. Over 200 students and faculty members participate in Nuclear Engineering Night each year.

Past keynote speakers include Steve Tritch (Westinghouse), Pete Sena (First Energy), Kris Singh (Holtec), William Magwood (USNRC), and Peter Lyons (DOE). Pitt Chancellor Patrick Gallagher will open the evening and introduce Mr. Gutiérrez. The keynote speech will be followed by a panel discussion and a networking session.

CfE Hosts Two Key DOE Grid Modernization Workshops



The Mission Innovation Workshop

The University of Pittsburgh's Center for Energy hosted the U.S. Department of Energy Mission Innovation Workshop on Grid Modernization on Friday, June 24th, 2016, at the Energy Innovation Center in Pittsburgh's Hill District. The workshop focused on modernizing the electric power system. The Pittsburgh region is confronting aging, legacy-based infrastructure and the need to integrate new technologies such as renewables, batteries, electric vehicles, and the Internet of Things. Workshop topics included the interplay of grid technologies, system design, operations, regulation, and its influence on markets and policy. Participants discussed strategies, initiatives, and collaborations to help drive regional innovation, facilitate solutions, and advance progress toward a modern grid.

The DOE recently released a two volume report entitled, "Exploring Regional Opportunities in the U.S. for Clean Energy Technology Innovation." The reports are available at the DOE [website](#).

Next Generation Grid Components Workshop

On August 17th and 18th, the Department of Energy utilized the Swanson School of Engineering to host the Next Generation Grid Components R&D Program Planning Workshop. Attendees included representatives from utilities across the country, manufacturers, national laboratories, and universities.

This event was coordinated for the DOE by Dr. Brandon Grainger, an alumnus of the Swanson School of Engineering, and research faculty member of ECE at Pitt.

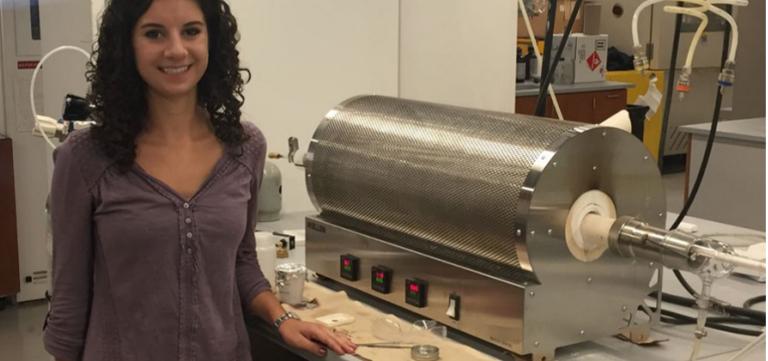
Faculty Spotlight: Dr. Götz Vesper



Götz Vesper is the Nicholas DeCecco Professor of Chemical Engineering at the Swanson School of Engineering and Associate Director of the Center for Energy at the University of Pittsburgh. He received his M.Sc. in Chemical Engineering from the University of Karlsruhe and his Ph.D. in Physical Chemistry from the Fritz-Haber-Institute of the Max-Planck-Society (both in Germany).

He directs the Catalytic Reaction Engineering Laboratory, with a research focus on process intensification, multifunctional reactor concepts, and design of functional nanomaterials. Main applications of his research are in natural gas & fuels processing as well as carbon capture & conversion technology. He is also a co-instructor in the 2016 National Academies' Energy Issues Forum, an interdisciplinary course jointly developed with the University of Pittsburgh Honors College, Carnegie Mellon University, and the Science & Engineering Ambassadors Program. Götz serves as a board member of the North American Catalysis Society and on the editorial board of several international journals.

Graduate Student Researcher: Emily C. Cimino



Emily C. Cimino is a Materials Science and Engineering major from Level Green, PA, working in Dr. Brian Gleeson's group. Her research is focused on deposit-induced corrosion ("hot corrosion") of nickel-based alloys used in advanced aero engines. The alloys are supplied by Pratt & Whitney. This form of corrosion can severely limit the performance and service life of hot-section components of aero engines, such as turbine blades and vanes.

Through her PhD research at Pitt, she is advancing the understanding of the mechanisms and kinetics of hot corrosion as a function of exposure temperature and environmental factors, such as SO₂ level and deposit chemistry. Hot corrosion is a serious problem found not only in aero turbine engines but also marine and land-based engines. A better understanding of hot corrosion can lead to the development of engineering approaches to mitigate its effects.

She enjoys being a part of a research group that is closely connected to industry. "It is exciting communicating with other students in the lab group, who are collaborating with companies and working on projects in the area of high temperature corrosion. I have also enjoyed working with analytical equipment, and am fortunate to attend a well-equipped university."

Ms. Cimino is one of Pitt's RK Mellon Graduate Student Fellows, and is appreciative of the opportunity. "The support from this fellowship has allowed me to focus on my research. Working in Dr. Gleeson's group, I enjoy the practical aspects of my project and interfacing with Pratt & Whitney. My career goal is to work in the research and development side of a company, and with the opportunity this fellowship provides I have been able to greatly expand my skills as an independent researcher. I am grateful for the RK Mellon Fellowship, and look forward to continuing my research at Pitt."