



VIRGINIA ENERGY EFFICIENCY COUNCIL

2022 Energy Efficiency Forum

October 31st & November 1st

Welcome

Dear Energy Efficiency Friends and Supporters,

On behalf of the VAEEC Board and Staff, we welcome you to the 2022 Energy Efficiency Forum. Our Staff has worked diligently for months to arrange this premiere event for all of us to enjoy.



It continues to be an exciting time for the energy efficiency sector in Virginia. Our members are beginning to reap the benefits of strong clean energy and climate policies that have passed over the last several years, which the VAEEC helped shape, and we are seeing additional new opportunities on the horizon with federal dollars that have begun flowing to the states. Now is a great time to gather together to share in the successes of our members.

Thank you for attending today and for bringing your expertise to our event. You, our members, have the vision, the knowledge, and the experience to help us ensure that energy efficiency is an integral part of the clean energy future in Virginia. We succeed with your involvement.

Sincerely,

John Morrill

John Morrill
VAEEC Board Chair
Fairfax County

Chelsea Harnish

Chelsea Harnish
VAEEC Executive Director

Agenda: Day 1

OCTOBER 31ST; VIRTUAL

9:30-9:40 PM

WELCOME & UPDATES

9:40-10:55 PM

BREAKOUT SESSION 1

*A TALE OF TWO
HEAT PUMPS*

*USING LESS TO GET MORE:
THE ROLE OF EE IN
DECARBONIZATION*

10:55-11:15 PM

VIRTUAL NETWORKING

11:15-12:30 PM

BREAKOUT SESSION 2

*EFFICIENCY FIRST:
STRATEGIES TO IMPROVE
MUNICIPAL BUILDINGS*

*PROOF OF CONCEPT:
APPROACHES TO ENERGY
EFFICIENCY*

12:30 PM

CLOSING REMARKS



SIEMENS

project:HOMES

Agenda: Day 2

NOVEMBER 1ST; RICHMOND, VA

12:30-1:30 PM REGISTRATION & NETWORKING

1:30-1:40 PM WELCOME & OPENING REMARKS

1:40-2:00 PM KEYNOTE ADDRESS

JENNIFER BUMGARNER
U.S. DEPARTMENT OF ENERGY

2:00-2:15 PM NETWORKING BREAK

2:15-3:30 PM PLENARY SESSION

*PREPARING FOR IMPACT: NEW FUNDING
OPPORTUNITIES TO ACCELERATE ENERGY EFFICIENCY*

3:30-4:00 PM VIRGINIA ENERGY EFFICIENCY
LEADERSHIP AWARDS CEREMONY

4:00 PM CLOSING REMARKS

4:00-6:00 PM NETWORKING HAPPY HOUR



SIEMENS

project:HOMES

Sessions

OCTOBER 31ST, 9:40 - 10:55 AM (CONCURRENT SESSIONS)

A Tale of Two Heat Pumps

Heat pump adoption is a priority for the Biden administration, and the technology has long been proven to be safer and more efficient than traditional boilers. However, barriers exist to widespread use. We'll discuss the barriers and opportunities with experts from the NE and SE to address these regions' needs and perspectives.

Speakers: Ian Harris (BlocPower), Maggie Kelley Riggins (SEEA), Louis O'Berry (Rappahannock Electric Co-op), Dan York (ACEEE, MODERATOR)

Using Less to Get More: The Role of EE in Decarbonization

Decarbonization has become a buzzword lately with the passage of historic federal laws. During this panel, learn from those implementing successful decarbonization programs with an eye on energy efficiency. Examples include both state- and utility-run programs, including what one of the Commonwealth's gas utilities has in the works.

Speakers: Erich Evans (Columbia Gas), Caterina Hatcher (U.S. Environmental Protection Agency), Shaun Hoyte (Con Edison), Edward Yim (ACEEE), Solome Girma (D.C. Sustainable Energy Utility, MODERATOR)

OCTOBER 31ST, 11:15 AM - 12:30 PM (CONCURRENT SESSIONS)

Efficiency First: Strategies to Improve Municipal Buildings

Local governments and public school systems often face a unique set of challenges when it comes to the comfort, cost, and health of their buildings. This session will focus on inventive ways this sector is improving its buildings through efficient and equitable programs.

Speakers: Joanne Bissetta (Massachusetts Dept. of Energy Resources), Ann Livingston (Southeast Sustainability Directors Network), Chris Russell (Maryland Energy Administration), Kristel Riddervold (City of Charlottesville, VA, MODERATOR)

Sessions

OCTOBER 31ST, 11:15 AM - 12:30 PM (CONCURRENT SESSIONS)

Proof of Concept: Approaches to Energy Efficiency

This case study session is designed to provide the value of shared experience and knowledge from those who have navigated new technologies and successful programs. Learn about advancements in window construction and rural, low-income housing programs from experts in the field. An audience Q&A will be held after each of the two presentations.

Speakers: Robert Hart (Lawrence Berkeley National Lab) & Katie Henderson (Efficient Homes, MODERATOR); Betsy Farrell Garcia (Front Porch Initiative), Mackenzie Stagg (Front Porch Initiative), Brett Hood (CHP Energy Solutions, MODERATOR)

NOVEMBER 1ST, 2:15-3:30 PM (PLENARY SESSION)

Preparing for Impact: New Funding Opportunities to Accelerate Energy Efficiency

Between the Bipartisan Infrastructure Law and the Inflation Reduction Act, states and localities are receiving an historic investment in clean energy. But what does that mean for Virginia? Hear from experts in state and local governments, industry and policy for a breakdown, and what's next for energy efficiency in the Commonwealth.

Speakers: Bettina Bergoo (Virginia Energy), Abby Campbell Singer (Siemens), John Morrill (Fairfax County), Sabine Rogers (AnnDyl), Rebecca Hui (Virginia Energy Efficiency Council, MODERATOR)

CHAMPION



Community Housing Partners' (CHP) Energy Solutions division promotes healthier, safer, and more energy-efficient built environments by providing energy audits, inspections, energy performance upgrades, and building science education across the Southeast and Mid-Atlantic. CHP Weatherization helps low-income individuals and families reduce energy burdens by improving the energy efficiency and health of their homes. They also partner with electric and gas utilities across the state to administer efficiency programs that reduce energy burdens and increase comfort, health, and safety for their income-qualifying residential customers. The Research and Training Center extends the knowledge and skills of the Energy Solutions team to weatherization and energy efficiency professionals across the country. In 2021, CHP weatherized 6,393 homes, trained 1,387 professionals in building science, and administered energy efficiency programs for eight utility companies.



Dominion Energy's energy efficiency programs can help you explore ways to reduce your energy usage at home and work. The Dominion Energy Efficiency Products program has discounted over 5 million LED bulbs, and in 2020 discounted over 19,000 appliances. The Home Energy Assessment program reached over 2,700 participants, and the low income weatherization programs reached over 3,200 homes. Dominion launched a variety of new programs this year to provide customers with more energy-saving opportunities.



PEG LLC will begin its 25th year in business this November as a certified woman-owned, diverse energy efficiency, engineering, environmental, and management consulting firm operating principally in the Eastern and Central United States. PEG specializes in building energy performance, green building program compliance, building diagnostics, environmental and code compliance, thermal performance, HVAC design and operation, and third-party construction defect risk management. These capabilities have enabled PEG to lead in the application of national green building standards and demand-side energy efficiency protocols.

Sponsors

LEADER

SIEMENS

Siemens Industry has built a reputation for delivering leading-edge products and services, high levels of customer satisfaction, and an unending spirit of innovation for over 165 years. As a service provider, system integrator, and product manufacturer, Siemens offers sustainable building products, technologies, and solutions. Siemens Smart Infrastructure addresses the pressing challenges of urbanization and climate change by connecting energy systems, buildings, and industries by providing customers with a comprehensive end-to-end portfolio – with products, systems, solutions, and services from the point of power generation all the way through to consumption. With an increasingly digitalized technology ecosystem, Siemens helps customers thrive and communities progress while contributing toward protecting the planet.

PARTNER



project:HOMES is a community development corporation dedicated to improving the quality of housing and living conditions for low-income, elderly, and disabled residents by providing and maintaining safe, accessible, and affordable homes. Since 1992, project:HOMES has been helping people in need in Central Virginia through their mission of "Improving lives by improving homes". They focus on home health and safety, energy conservation, and affordable housing production through building quality, affordable homes and making critical home repairs and improvements.

ADVOCATE



Speakers



Bettina Bergoo, Energy Efficiency & Financing Programs Manager at [Virginia Department of Energy](#): Bettina serves as a subject matter expert on programs, policies, and practices related to energy efficiency and clean energy financing at the Virginia Department of Energy. Previous to joining Virginia Energy, Bettina worked in the Natural Resources Defense Council's Green Finance Center, where she advocated for solutions to increase private investment in green infrastructure and to make affordable multifamily housing healthier and more energy efficient. Bettina started her career as a building energy program specialist in the U.S. Department of Defense, after which she worked in India, Uganda and Malawi conducting policy analysis of the off-grid energy sector and incubating clean energy social enterprises. She has an undergraduate degree in anthropology and a master's degree in public policy.



Joanne Bissetta, Director, Green Communities Division at [Massachusetts Department of Energy Resources](#): Joanne started at the Massachusetts Department of Energy Resources (DOER) in 2009 as a Regional Coordinator, working directly with municipal officials and volunteers on Green Communities Designation and clean energy projects, and was named Deputy Director in 2016. She possesses over two decades of local and state government experience, having worked at MassDEP, the Town of Concord, and City of Cambridge. Joanne earned a BS in communications at Emerson College and a MA in Urban and Environmental Policy at Tufts University. When not working, you can find her in the garden, on her bike, or tending to her backyard chickens.



Jennifer Bumgarner, Principal Deputy Assistant Secretary for Congressional & Intergovernmental Affairs at [U.S. Department of Energy](#): Jennifer oversees the distribution of historic federal funding opportunities stemming from the Inflation Reduction Act and the Bipartisan Infrastructure Law. Prior to joining the DOE, she was most recently Senior Regional Director for the Southeast with Energy Foundation, where she led a team working to advance equitable climate and clean energy solutions across a 14-state region. Jennifer also served as Assistant Secretary for Energy with the North Carolina Department of Commerce, where she administered more than \$275 million in federal funding under the American Recovery and Reinvestment Act and led efforts to integrate clean energy into the state's economic development strategy. She served as a Policy Advisor to Governor Michael F. Easley and as a Policy Advisor and Deputy Policy Director to Governor Beverly Eaves Perdue. A native North Carolinian, Jennifer holds a B.A. in Politics from Wake Forest University and a Master of Science in Social Policy from the University of Oxford in Oxford, United Kingdom, where she studied as a Rhodes Scholar.

Speakers



Abby Campbell Singer, Senior Director & Head of Climate & Infrastructure Policy, Government Affairs at [Siemens Industry](#): Abby is a government affairs professional with nearly 15 years of experience in energy and climate policy and previous work in congress, international energy, and campaigns. She is responsible for leading climate and infrastructure policy for Siemens USA and managing federal affairs for Siemens Smart Infrastructure USA. Prior to joining

Siemens, she served as a Senior Advisor for the British Embassy in D.C., where she managed a team of policy advisors based in British Consulates across the U.S. on energy and climate policies. She also served as a Professional Staff Member for the U.S. Senate Committee on Energy and Natural Resources.



Erich Evans, Director, Corporate Strategy & Development at [NiSource](#): Erich has been at his current role for six years and with NiSource for nearly 20 years. His background spans diverse areas of business, finance, and operational expertise, including research, expert legal testimony, risk management, and marketing. Erich excels at formulating and implementing forward-thinking, short- and long-term strategy for ensuring organizational success.



Betsy Farrell Garcia, Assistant Research Professor at [Front Porch Initiative](#): Betsy joined the Front Porch Initiative team in 2020. Garcia is a 2008 graduate of Rural Studio's 5th-year program and a member of the student team that designed and built the 20K Bridge Home. A registered architect in Massachusetts, her experience ranges from master planning and design to construction administration and delivery of award-winning projects. She brings

expertise with envisioning and designing efficient, resilient, and equitable housing for communities that need it most. Betsy's strong belief in Rural Studio's community-driven mission motivates her in furthering its valuable work.



Solome Girma, Director, Program Management Office at [D.C. Sustainable Energy Utility \(DCSEU\)](#): Solome has been with the DCSEU for five years where she leads, directs, and manages the Program Management Office with primary responsibility for all DCSEU program implementation and service delivery in order to achieve contractual performance benchmarks. She oversees the system and program development activities necessary to maximize the

customer value of cost-effective energy efficiency projects within the residential, commercial, and institutional markets and programs targeted by DCSEU while contributing to a mission-driven creative, and stimulating work environment. Prior to her role at DCSEU, Solome served as an Energy Program Specialist for the U.S. Department of Energy.

Speakers



Ian Harris, Business Development Associate at [BlocPower](#): Ian is the business development lead for BlocPower. During his time with BlocPower, he has supported hundreds of houses of worship, multi-family buildings and non-profits to become energy efficient. Ian continues his commitment to service and his community outside of BlocPower, as a member of his local community board and chair of a \$158 million economic development investment into Jamaica, Queens. Prior to BlocPower, Ian worked for the New York State Department of Labor and the Queens County Board of Elections, where he trained thousands of poll workers in New York City. Ian completed his undergraduate degree from the University of Hartford, majoring in political science and communications.



Robert Hart, Principal Scientific Engineering Associate at the Building Technology & Urban Systems Division of [Lawrence Berkeley National Lab](#): Robert performs research and model development of energy-efficient windows and window attachments within the Windows and Envelope Materials Group. His recent work includes the development and experimental analysis of highly insulating "super windows", shading systems, and vacuum glazing. He holds a B.S. in Mechanical Engineering from Cal Poly San Luis Obispo and a M.S. in Mechanical Engineering from Stanford University with concentrations in heat transfer and fluid dynamics. He is a registered Professional Engineer in the state of California, and a LEED AP.



Caterina Hatcher, ENERGY STAR National Manager, Public Sector at [U.S. Environmental Protection Agency \(EPA\)](#): Caterina (Katy) is the US EPA's ENERGY STAR Public Sector National Manager. She works with public sector organizations, such as government agencies and schools, to help improve energy performance through the use of ENERGY STAR tools and resources, including ENERGYSTAR Portfolio Manager. Katy has been working for EPA since 1996. She holds a degree from the University of Virginia's School of Architecture in City Planning. Hundreds of thousands of commercial properties have been benchmarked in Portfolio Manager. Portfolio Manager has become the standard national platform for benchmarking energy use in commercial buildings in the United States and Canada.



Katie Henderson, Manager at [Efficient Home](#): Katie holds a Bachelor of Science in Engineering in Mechanical Engineering from Duke University with a Minor in Environmental Science and Policy and a Certificate in Energy and the Environment. She manages processes relating to energy auditing, modeling, and retrofit services for the existing building commercial portfolio of Efficient Home, specializing in multifamily properties. Katie is a Certified Energy Manager (CEM), BPI Building Analyst, and BPI Multifamily Building Analyst.

Speakers



Brett Hood, Assistant Director of Operations at [Community Housing Partners Energy Solutions](#): Brett leads the Contracting department at CHP Energy Solutions. Using his 20+ years of private market construction experience, he now leads a team coordinating dozens of subcontractors delivering urgent and critical home repair services to hundreds of income-qualifying families each year through Virginia's Weatherization Deferral Repair program. Over the past 13 years with CHP Energy Solutions, he has managed weatherization production, energy auditing operations, and utility-sponsored weatherization programs. Brett is a certified Housing Rehab Specialist, licensed Residential Building Energy Analyst, and holds multiple BPI designations.



Shaun Hoyte, Clean Energy Networks Section Manager, Energy Efficiency & Demand Management Department at [Con Edison](#): In his role with Con Edison, Shaun is responsible for developing strategies and leading the team that cultivates industry partnerships that spur market transformation and advance the clean energy economy. He has over a decade of experience in energy efficiency program management, as well as hands-on work in electrical maintenance and steam distribution. Shaun's commitment to diversity, equity, and inclusion, combined with a passion for sustainability, results in impactful change for both Con Edison and the communities it serves.



Rebecca Hui, Member Services Manager at [Virginia Energy Efficiency Council](#): Rebecca joined VAEEC in October 2018, acting as the single point of contact for all membership activities. She also spearheads the organization's workforce development initiative and acts as the staff liaison on the technology committee. Rebecca holds a Bachelors of Art in English , which she applies daily to the organization's communications and social media.



Maggie Kelley Riggins, Built Environment Project Manager at [Southeast Energy Efficiency Alliance](#): Maggie has devoted her career to developing innovative and holistic approaches to understanding and solving gnarly problems faced in the South around climate and energy. Maggie currently manages the building portfolio as the Senior Program Manager at the Southeast Energy Efficiency Alliance where she is laying the landscape for equity through climate and workforce in energy efficiency. She manages SEEA's energy efficient building code and standards work and the building-oriented pilot project models for local governments to increase energy efficiency as a solution for residential, commercial, and municipal buildings. Maggie is currently leading the nation's work in drawing direct connections from building energy codes and standards to racial justice, opening new pathways to achieve affordable, healthy, and sustainable housing for everyone.

Maggie serves as the Vice Chair of the VAEEC Board of Directors.

Speakers



Ann Livingston, Director, State Policy Program at [Southeast Sustainability Directors Network](#): Ann has consistently taken an entrepreneurial approach to

developing and implementing leading edge solutions to sustainability issues facing communities, regions, and states since earning a J.D. and an Interdisciplinary Graduate Certificate in Environment, Policy and Society from the University of Colorado in 2000. She has served as the Land Use Attorney for

Environment Colorado; Director, Center for Communities by Design at the AIA National Chapter; Boulder County Sustainability Coordinator; Program Manager for State and Local Engagement at the Southwest Energy Efficiency Project; Principal Planner in Sustainability for Fort Lauderdale; and as a Climate Advisor for the City of St. Petersburg, FL prior to joining the SSDN team as Policy Director. Ann has worked collaboratively with multiple levels of government, utilities, the private sector (including technology firms, trade allies, and financial institutions), advocacy groups, Federal Laboratories, the U.S. Dept. of Energy, and state energy offices among others.



John Morrill, Division Manager, Office of Environment & Energy Coordination at [Fairfax County, VA](#): John is the division manager for innovation and sustainability in the Office of Environmental and Energy Coordination (OEEC) at Fairfax County. As a part of the County Executive's Office, OEEC guides policy and implementation of several Fairfax County initiatives including its

Operational Energy Strategy, Fairfax Green Initiatives, and the emerging Community Energy and Climate Action Plan. Prior to joining Fairfax, John was the energy manager for Arlington County, where he led a broad portfolio of work in energy management and energy policy. Earlier in his career John held research and management positions during 17 years with the American Council for an Energy-Efficient Economy (ACEEE) in Washington DC.

John joined the VAEEC Governance Board in October 2014 where he currently serves as Board Chair.

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Louis O'Berry, Energy Services & Solutions Administrator at [Rappahannock Electric Cooperative](#): Louis joined the REC team in 2016 with a building science and HVAC background. Louis currently operates all REC energy efficiency programs to include a first of its kind on bill financing platform, which recently

launched in late summer 2022. He has over 20 years combined experience in residential, commercial, and industrial HVAC industries. Louis holds a VA Master HVAC license, is a certified BPI Building Analyst, and Professional Energy Manager (PEM) through the Institute of Energy Professionals. Louis' background in energy efficiency, renewable energy, and distributed energy resources is vital while providing oversight and support to REC member-owners and staff. He also serves on the Local Energy Alliance Program (LEAP) since 2017 and is currently the Board Chairman. In his spare time, Louis enjoys fishing, gardening, home projects, and spending time with friends and family.

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Speakers



Kristel Riddervold, Environmental Sustainability Manager at [City of Charlottesville, VA](#): Kristel is an environmental professional with more than 25 years of experience in scientific environmental research, environmental compliance, and the development of sustainability initiatives. Kristel has served as the Environmental Sustainability Manager for the City of Charlottesville, Virginia since 2002 when the City formally established an environmental

program dedicated to environmental compliance, public education, pollution prevention, and environmental stewardship opportunities. The Division establishes and pursues projects and initiatives in support of the City's environmental sustainability and goals, develops and implements program, tools and solutions to support and promote climate protection, natural resources protection, resource efficiency and conservation, and provides internal support to a range of City programs.



Sabine Rogers, Manager of Government & Regulatory Affairs at [AnnDyl Policy Group](#): In her role at AnnDyl, Sabine leads state legislative and regulatory advocacy, policymaker education, and policy analysis/monitoring efforts for clients. She brings expertise on clean energy and energy efficiency policy issues, particularly related to the residential buildings sector. She also manages initiatives related to the smart grid and home energy management and has

co-authored reports on grid-interactive efficient buildings and how smart technologies can advance home performance, decarbonization, and resilience. Sabine convenes and engages with key industry stakeholders, and has organized numerous conference sessions, workshops, and working group meetings on topics related to energy efficiency and demand flexibility. Sabine holds a bachelor's degree in Environmental Studies from Mount Holyoke College.



Christopher Russell, Energy Program Manager at [Maryland Energy Administration](#): Chris is the Energy Program Manager for State Buildings & Building Codes at the Maryland Energy Administration. Christopher is the author of "Managing Energy from the Top Down" and "North American Energy Audit Program Best Practices." He holds an M.B.A. and a Master of Arts degree from the University of Maryland and a B.A. from McGill University. His 35 years

of experience in the energy field has taken him across much of North America and as far away as Australia.

Speakers



Mackenzie Stagg, Assistant Research Professor at [Front Porch Initiative](#): Mackenzie has been a project manager for the Front Porch Initiative since 2018, focusing on development of building products and the drawings needed to communicate the design intent. She previously worked on affordable, multi-family housing with Community Housing Partners in Christiansburg, VA, and at Waggoner & Ball in New Orleans, LA, focusing on urban design projects aimed at increasing resilience in coastal cities. Her research interests include housing affordability and building technology. She digs isometric constructed drawings.



Edward Yim, State & Utility Policy Director at [American Council for an Energy-Efficient Economy \(ACEEE\)](#): Edward directs the State and Utility Policy Program and strategizes how transformative energy efficiency can be incorporated in utility programs and practices, including infrastructure planning for reliability and resiliency, at state and local levels. He advocates for policies and programs that lead with low demand and energy efficiency strategies to combat climate change and to realize greater energy independence. Prior to joining ACEEE in 2022, Edward worked at the District of Columbia Department of Energy and Environment as its energy policy advisor, leading the department's efforts in developing energy decarbonization and resilience plans, as well as its grid modernization and energy transition strategies. He previously worked for the Pennsylvania House of Representatives and in the private sector on energy and infrastructure issues.



Dan York, Senior Fellow at [American Council for an Energy-Efficient Economy \(ACEEE\)](#): Dan is an ACEEE Senior Fellow primarily engaged in utilities and local policy research and technical assistance. He has extensive experience in tracking and analyzing trends and emerging issues in utility sector energy efficiency programs. Dan has a bachelor's degree in mechanical engineering from the University of Minnesota. His master of science and PhD degrees, from the University of Wisconsin-Madison, are both in land resources with an emphasis in energy analysis and policy. He joined ACEEE in 2001.

2022 Awards

VIRGINIA ENERGY EFFICIENCY LEADERSHIP AWARDS

Over the last seven years, the VAEEC has honored dozens of individuals, organizations, and companies for their energy efficiency achievements. These awards showcase how energy efficiency leaders across the Commonwealth are *helping businesses, governments, homeowners, and schools save money on energy bills while reducing energy consumption - all while stimulating job growth and our economy.*



SELECTION PROCESS

The 2022 awards were made possible by members of our Education & Events Committee, who scored all of the nominations. The Committee is composed of VAEEC members who are energy experts from different sectors working across the Commonwealth.

Each nomination was scored using the same criteria. The main considerations were the impact/potential impact of the nominee's efforts on *reducing overall energy use and on improving the building, occupants, and/or the affected community.*

Thank you, Education & Events Committee members!

Dave Gelman, *VEIC*

Michael Hubbard, *Dominion Energy*

Nicholas Polier, *Virginia Energy*

Leigh Anne Ratliff, *Trane*

Joel Sarmiento, *CMTA*

Carrie Webster, *Henrico County*

Congratulations to all of the 2022 VEEL Awards winners. Learn about winning projects from previous years in our video series, *Building the Future*.

2022 Award Winners

EXEMPLARY PROJECT AWARD

Chiller Plant Phase II Project at Virginia Tech

Presented to the Virginia Tech Division of Campus Planning, Infrastructure, and Facilities

Historically, two chiller plants provided chilled water to certain buildings on the Virginia Tech campus via independent networks of underground pipes. The Chiller Plant Phase II project upgraded and connected these plants to form a main chilled water loop that serves almost 40% of air-conditioned buildings on campus. Three LEED compliant chillers have been installed at the two plants, increasing the capacity and distribution of the system. Additionally, over four miles of large underground piping was installed, which helped connect the two plants. Several direct chilled water connections were added to the system, expanding the loop to reach additional critical facilities. Buildings with older, stand-alone, less efficient chillers had these assets decommissioned, and were added to the network.

When looking at electrical demand related to chilled water generation, the Blacksburg campus has recognized **over a 50% kWh reduction** compared to the five-year annual average prior to this project kicking off. This 54% drop in electrical consumption for FY 2022 translates to a **cost avoidance of \$1.8 million**. In addition to the efficiencies and savings, the upgraded plants and piping network have yielded an **improvement in acoustics and aesthetics** on campus. By bringing individually chilled buildings into the loop, facilities experience **less down time** stemming from repairs. The increased capacity and loop **supports future campus expansion**. This project also provided important **employment opportunities** to the surrounding community.



Virginia Tech's Chiller Plant Phase II project has provided the Blacksburg campus with increased energy and operational efficiency, while also improving campus aesthetics and providing employment opportunities for the surrounding community.

2022 Award Winners

OUTSTANDING PROGRAM AWARD

Appalachian Power Company's Low-Income Multifamily Program

Presented to the Appalachian Power Company Virginia

The Appalachian Power Company (APCo) Virginia Low-Income Multifamily Program (VA-LIMF) aims to generate energy savings for high usage residential income-qualifying customers through evaluation and implementation of energy saving improvement opportunities. The program provides participants with the installation of cost-effective weatherization and energy saving product upgrades based upon auditor recommendations in eligible dwellings. APCo's VA-LIMF also includes an educational component for participating customers on ways to effectively manage their energy usage.

CHP Energy Solutions serves as the program implementer for APCo's VA-LIMF, as well as one of eleven participating weatherization service providers (WSPs). In coordination with the participating WSP's, **energy efficiency and health and safety measures** are delivered to income-qualifying APCo customers residing in multifamily housing stock – **a housing stock historically under-served** through the federal Weatherization Assistance Program (WAP) due to funding limitations.

In the program's inaugural year, 2021, nearly **1 million kWh of realized net energy savings** was generated through energy efficiency services, as well as **improved health outcomes** covered by the program's health and safety budget. Approximately **\$3 million in incentives** were made available in 2021, supplementing WAP funds and **supporting countless jobs** between WSP's, trade allies, and material suppliers.



This is the first utility-sponsored weatherization program specifically focused on income-qualifying multifamily housing stock in Virginia. The program improves residential comfort, health, and safety while reducing the energy burdens of under-served multifamily communities throughout APCo's Virginia service territory.

2022 Award Winners

POLICY IN ACTION AWARD

Weatherization, Deferral, & Repair Program: Eastern Shore Spotlight

Presented to project:HOMES

When a home is in too severe of disrepair to qualify for federal weatherization services, Weatherization Assistance Providers (WAPs) must walk away, or defer, the project. However, Virginia's participation in the **Regional Greenhouse Gas Initiative (RGGI) provided the solution** they needed through the Weatherization Deferral and Repair Fund. This funding allows WAPs to expand the scope of their services!

The most common reasons for deferrals are roofing and heating system issues. On the Eastern Shore, project:HOMES used WDR funds to provide **15 new roofs**, and install **safe heating systems in ten households**. Instead of having to walk away, some residents **now live in safe, dry homes with reduced risk of fire, carbon monoxide poisoning, and breathing problems**. In just 15 months, project:HOMES has submitted 177 single family projects for WDR support. They have also completed an emergency shelter and two multifamily properties, with three more multifamily properties in the que. **WDR is reshaping how WAPs do their work.**

Project:HOMES and WDR staff have worked together to refine and streamline the process. By improving their methods, and building a strong subcontractor network, project:HOMES is able to deliver WDR services throughout the 23 counties and 11 cities in their service area.



Since the start of Virginia's WDR program, project:HOMES' deferral rate has dropped 62%, allowing them to serve more homes than ever before. RGGI funds are making a big difference in Virginia's communities, helping residents, and supporting solid workforce and economic growth.

VAEEC Staff & Board

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JESSICA GREENE, Outreach Director



REBECCA HUI, Member Services Manager

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ACADEMIC

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AnnDyl Policy Group
Association of Energy Engineers
Birch Studios
Dominion Energy Innovation Center
Local Energy Alliance Program
Mid-Atlantic Aerobarrier
Sierra Club (VA Chapter)
Think Little
U.S. Green Building Council
VEIC
VA PACE Authority
Viridiant
Weatherizers Without Borders

PARTNER

Alliance to Save Energy
American Council for an EE Economy
NAESCO
SE Energy Efficiency Alliance
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VA Renewable Energy Alliance

INDIVIDUAL

Allen Asbury
Carl Beckelheimer
Greg Clendenning
Eric Lacy
Frank Maher
Jason Mitchell
Bill Nusbaum
Saifur Rahman
Chris Rawlings
Rodney Sobin
Daniel Yeh

Upcoming Dates

JANUARY 11, 2023

General Assembly
Session Begins

MAY 2023

VAEEC Member
Meeting



**VAEEC**