

ALASKA WIND WORKSHOP

September 7-8, 2023 • Anchorage, Alaska
• Dena'ina Civic and Convention Center •



Renewable Energy
Alaska Project



WORKSHOP SPEAKERS & MODERATORS

Tom Atkinson, GM/CEO, Kotzebue Electric Association



Tom Atkinson has been a resident of Kotzebue, Alaska since 2006 when he began his career with the Alaska Commercial Company as the Manager of the Alaska Commercial Store in Kotzebue. In 2014 Tom started work with the City of Kotzebue and spent time as a department head in two different departments before becoming City Manager in 2020. During this time, Tom also served on the Board of Directors for the Kotzebue Electric Association for approximately 5 years. In April of 2023 Tom was asked to serve as General Manager / CEO for the Kotzebue Electric Association.

E. Ian Baring-Gould, Technology Deployment Manager & Senior Engineer/ Distinguished Members of Research Staff, National Renewable Energy Laboratory



Ian Baring-Gould graduated with a MSME from the University of Massachusetts Renewable Energy Research Laboratory in 1995 and started working at the National Renewable Energy Laboratory (NREL) of the United States in that year. Ian's work at NREL has focused in three primary areas; applications engineering for distributed Renewable Energy (RE) technologies, assistance in the implementation of renewable technologies for both developed and rural markets, and educational outreach for renewable energy technologies, primarily wind. Ian leads NREL's research and deployment efforts relating to distributed wind energy systems, including the Competitive Improvement Project and is the co-operating agent for the International Energy Agency research taskforce on distributed wind turbine technologies. In this work, Ian's deployment-related technical assistance has focused in energy development for both central station and rural/isolated electrification including the design, analysis, and implementation of renewable based power systems and rural energy development programs at the regional and national level. Ian also oversees NREL workforce and educational development program for wind energy including the Wind for Schools, Collegiate Wind Competition and other land-based and offshore wind workforce development efforts. Historical efforts have also focused on national level educational campaigns, such as the U.S. Department of Energy's WINDEXchange Initiatives. Ian has authored or co-authored over 100 publications and has taken part in numerous international research and standards development activities around renewable based rural energy development. Ian has received numerous awards for his work, including the Women of Wind Energy (now Women of Renewable Energy) Champion Award in 2013.

Sue Babinec, Engineering Program/Project Lead, Sandia National Laboratory



Sue Babinec is the Program Lead – Stationary Storage at Argonne National Lab where she leads efforts ranging from new tools and capabilities to enhance existing technologies and breakthrough research for new approaches to long duration energy storage goals. Babinec previously served six years in Washington DC as senior commercialization advisor at the Advanced Research Projects Agency – Energy (ARPA-E) where she co-managed the energy storage portfolio for both transportation and grid. Prior to ARPA-E she led several research groups focused on design and scale-up of Li-ion technologies as a technical director for A123 Systems, Inc.. Babinec spent the first two decades of her career at The Dow Chemical Corp., where she was the Senior Electrochemist, a senior member of the Corporate VC group, was awarded the Inventor of the Year Award, and was the company’s first woman Corporate Fellow. She holds 50+ patents, and has authored or coauthored dozens of journal articles and book chapters.

Karen Bell, Manager of Planning, Alaska Energy Authority (AEA)



Karen Bell is the Manager of Planning for AEA, the State’s lead agency for statewide energy policy and program development. Ms. Bell has over 20 years of experience in planning, financial analysis, and management, with 10 years of experience in utility ratemaking. She received a Bachelor of Science degree in Business Administration and Mathematics from Fordham University and a Master of Science degree in Applied Economics from Johns Hopkins University. In her current position, she is responsible for administration of the Power Project Loan Fund and the Renewable Energy Fund, and tracks funding opportunities authorized by the Infrastructure Investment and Jobs Act & Inflation Reduction Act.

David Clarke, Engineering Director, Alaska Marine Power (AMP)



David Clarke has 40+ years of experience in the energy industry in the fields of operations, engineering and project management. He earned a Bachelor of Science in Chemical Engineering from the University of Sheffield in 1979, England and a MBA from the University of Edinburgh, Scotland in 1998. He began his career with BP in Aberdeen, Scotland and during a long international career held roles in the UK North Sea, Australia, the US Gulf of Mexico, and the Russian Federation before moving to Alaska in 2007 to work for the BP Major Projects team in Anchorage. Since 2015 he has worked as a Project Management Consultant advising clients on new business ventures. He cofounded Alaska Marine Power (AMP) in 2021 with the mission to develop marine renewable energy technology at scale, to grow Alaska and cool the planet. His current focus is on developing the world class offshore wind resource in the Lower Cook Inlet and downstream markets for its renewable power including domestic power, eFuels and carbon capture.

Mark Foster, Principal, Mark A Foster & Associates (MAFA)



Mark Foster brings over 40 years of experience developing and analyzing energy/utility sector business plans and providing due diligence across the Alaska, national and international energy sectors, including oil & gas exploration, development, pipeline and tanker transport, electric utilities, natural gas exploration, development, storage, transport and electric generation/combined heat & power, coal fired power plant operations, maintenance, refurbishments and rebuilds, heating oil, biomass heating and electricity, hydroelectric project assessment, development and post commissioning reviews, and transportation sector energy supply chains. Energy sector clients have ranged from Agrium, Alaska Natural Gas Line Authority, Alaska Energy Authority, BP North America, Golden Valley Electric Association, Fairbanks Municipal Utilities System, Alaska Power & Telephone, Denali Commission, Kuukpik Corporation, North Slope Borough, University of Alaska Fairbanks, Danube University, Alaska Legislature and McKinley Capital. Mr. Foster served as a Commissioner on the Alaska Public Utilities Commission in the early 1990s.

Mark Glick, Chief Energy Officer, Hawaii State Energy Office (HSEO)



Mark Glick serves as Chief Energy Officer for the State of Hawai‘i, leading the Hawai‘i State Energy Office (HSEO) in its mission to promote energy efficiency, renewable energy, and clean transportation. Before rejoining HSEO in 2023, Glick was tenure track faculty of the Hawai‘i Natural Energy Institute, overseeing energy policy and innovation and coordinating State and University of Hawai‘i assets towards fulfillment of Hawai‘i’s ambitious energy transformation and supporting similar objectives in the Asia-Pacific region and beyond. Glick has a Master of Science, Public Management & Policy from Carnegie-Mellon University and a Bachelor of Arts in Mathematics from Lamar University. Glick previously served five years as Administrator of HSEO where he led Hawai‘i’s internationally regarded clean energy transformation efforts. He also served as Vice Chair of the National Association of State Energy Officials (NASEO), the only national non-profit association for energy officials from each of the 56 states and territories with the purpose of advocating for the interests of state energy offices to Congress and federal agencies. Glick served as senior advisor to the Texas Land Commissioner from 1987 to 1991, during which time he played a decisive role in passage of amendments to the Texas Clean Air Act and similar provisions in the federal Clean Air Act Amendments of 1990. For the next decade, Glick was a successful small business owner focused on reducing urban air pollution in the U.S. and abroad in collaboration with the U.S. Department of Energy, the Gas Research Institute, Petrobranga, Southern California Gas Company, Pacific Gas & Electric, Transco, Southern Union Gas Company and the New York City Department of Transportation among others. Returning to the public sector in 2003, Glick headed operations and economic development for the Office of Hawaiian Affairs from 2003 to 2010. Glick serves on the Board of Directors of the Washington Place Foundation and previously served three terms as Executive Committee Chair of the Hawai‘i Chapter of the Sierra Club and as Vice Chair of the Hawai‘i Green Infrastructure Authority.

Mihskakwan James Harper, Business Development, NRStor Inc.



Mihskakwan James Harper is a proud citizen of Sturgeon Lake Cree Nation in Treaty 8, Alberta. He is currently the Business Development Manager at NRStor Inc., where he champions developing large-scale energy storage and clean microgrid projects in a way that empowers communities and contributes to meaningful climate action. He holds a bachelor’s in mechanical engineering from the University of Manitoba and recently completed a Masters of Science in Renewable Energy from KTH Royal Institute of Technology and Ecole Polytechnique, with entrepreneurial training from ESADE Business School. He is a part of the SevenGen council, an organization that develops and leads programs for Indigenous youth to lead in clean energy and climate action. He also is a co-host for the podcast, *Decolonizing Power*, a series that aims to amplify voices worldwide on how clean energy enables authentic community empowerment. This experience combined with the 20/20 Catalyst program, he is passionate about the carbon free future, particularly within the power and mobility sectors. He loves his family and his community now and generations ahead, which inspires him to work with youth to build a future that is sustainable and empowers all.

Brian Hirsch, President & Founder, DeerStone Consulting LLC



Dr. Brian Hirsch is the President and Founder of DeerStone Consulting LLC, a renewable energy consulting firm focused on microgrid, utility, and community development in remote locations, especially the Arctic and the Tropics. Recent and ongoing projects include solar installations and supporting solar photovoltaic-wind-battery-diesel hybrid system in the northwest Arctic, troubleshooting wind-diesel systems in the Alaska villages of Unalakleet and Kokhanok, developing a large scale solar-battery system in Galena, Alaska, and several biomass projects across the state. He is currently involved in providing technical support to Alaska Native regional organizations and other groups covering over 120 communities across Alaska. From 2009-2015, he was the Senior Project Leader for the National Renewable Energy Laboratory’s (NREL) Alaska Initiative and projects globally. In that position, Dr. Hirsch led project development teams to advance efficiency and renewable energy technologies in remote communities across Alaska, Canada, and Indonesia. He received a Masters certification in Energy Analysis and Policy and a Doctorate in Land Resources from the University of Wisconsin-Madison, focusing on energy issues in northern regions of the world and a Bachelor’s degree in Government/Political Science with an additional focus on electrical engineering from Cornell University.

Ed Jenkin, Chief Operations Officer, Matanuska Electric Association (MEA)



Ed Jenkin is a licensed Professional Engineer in the State of Alaska with more than 30 years of experience working for Electric Cooperative. He is presently the Chief Operations Officer for Matanuska Electric Association. In this role he has oversight of MEA's system planning, engineering, operations, and system dispatch. Mr. Jenkin has worked with the Railbelt utilities on multiple joint initiatives to reduce costs and has provided testimony to the Regulatory Commission on Alaska on many of these efforts.

Dave Lovekin, Associate, Pembina Institute



Dave Lovekin is a clean energy consultant with over 15 years of experience in the renewable energy sector – working with governments, industry, academia, communities and community leaders on advancing clean energy solutions. Research and analysis in climate and energy policy with a specific focus on supporting diesel reduction in remote Indigenous communities across Canada was his primary focus for the past seven years. He was previously the director of the Renewables in Remote Communities Program at the Pembina Institute – a non-profit organization advancing Canada's clean energy transition. In his role, he developed the program which monitored and tracked diesel reduction efforts nationally, evaluated government climate and energy policy and programs and supported Indigenous leadership in the shift to clean energy.

Dustin Madden, CEM, Rural Energy Program Manager, Alaska Native Tribal Health Consortium (ANTHC)



Dustin grew up in Alaska and has family roots in the Norton Sound region. He currently manages ANTHC's Rural Energy Program, which develops and implements energy efficiency and renewable energy projects in partnership with AK Native communities to reduce energy costs for water and sewer systems. The Program has ten staff that manage and provide engineering support for over 60 projects in remote Alaskan communities. He previously was with the Cold Climate Housing Research Center, where he worked in areas including evaluating energy efficiency retrofit programs, researching efficiency of public facilities, and developing and updating energy efficiency standards for Alaska.

Andrea Mammoli, Distributed Systems Integration Program Principal, Sandia National Laboratory



Andrea Mammoli is a Principal Member of Technical Staff in the Renewable Energy and Distributed Systems Integration program. Andrea was a Director's Postdoctoral Fellow at Los Alamos National Laboratory between 1995 and 1997 and joined the University of New Mexico's Department of Mechanical Engineering thereafter, where he built a teaching and research program centered around optimization of design and operations of energy systems in buildings and microgrids. At UNM, Andrea was Professor of Mechanical Engineering and Director of the Center for Emerging Energy Technologies. In 2019, seeking to expand his horizons, Andrea joined the Electric Power Research Institute, where he participated in projects revolving around demand flexibility in residential, commercial and industrial systems. Andrea obtained a Bachelor of Engineering degree and Ph.D. in Mechanical Engineering, in 1991 and 1996 respectively, from the University of Western Australia. He authored over 150 journal and conference papers and edited several books. He works from his home base on the Northern California coast.

Tyler McCandless, PhD, Director of Data Science at Tomorrow.io



Tyler is the Director of Data Science at Tomorrow.io, an innovative weather technology company that is powering actionable weather insights around the world. Tyler leads the data science team, developing innovative machine learning solutions to improve predictability and developing renewable energy specific forecasting products. Tyler has a PhD in Meteorology from Penn State University and has been working at the intersection of machine learning and renewable energy forecasting for more than a decade.

Chris McConnell, Director Alaska Network of Energy Education and Employment Director (ANEEE)



As Director of REAP's Alaska Network of Energy Education and Employment (ANEEE) since 2017, Chris McConnell works to maximize energy literacy and training opportunities at the K-12, vocational, and University levels so that Alaskans can more easily identify and embark on career pathways in the energy sector. Chris helped establish People in Power (PIP) a training coordination program for operations and maintenance efforts at stand-alone rural Alaska utilities. Chris seeks to regularly convene and unite various federal, state, private and non-profit organizations in order to create alignments, leverage shared goals and identify potential efficiencies.

Dennis Meiners, Founder & President, Intelligent Energy Systems (IES)



Dennis Meiners is the founder and president of Intelligent Energy Systems (IES). IES was formed in 2006 specifically to create clean, efficient and cost-effective energy systems for Alaskan villages. For over 20 years, Dennis has focused on addressing the barriers to widespread deployment of renewable-based energy systems as alternatives to diesel generation. Working closely with remote communities to address their holistic energy needs, this work has involved pioneering the development, deployment and field demonstration of multiple specialized technologies, including microgrid control systems, wind systems, distributed battery and electric thermal storage, cross-community load control, smart metering, interconnection agreements, and operations and maintenance training. Dennis's company, IES, works closely with communities to enable the shift from fossil fuels to financially sustainable renewable systems, and has gained recognition as a leader in wind-diesel microgrid innovation.

Dave Messier, Infrastructure Division Director, Tanana Chiefs Conference



Dave Messier serves as the Infrastructure Division Director for Tanana Chiefs Conference, a non-profit inter-tribal consortium serving the needs of 37 federally recognized tribes across interior Alaska. Dave has been working on rural energy needs in bush communities since 2009 and currently oversees energy, broadband housing and transportation across the region. Dave holds a Bachelor of Science from Cornell University in Natural Resource management with a minor in business and a Masters of Business Administration (MBA) from the University of Alaska Fairbanks. He also serves as a board member on the Golden Valley Electric Association (GVEA) Board of Directors and owns Daylight Energy Services, an energy consulting company that led the design for the recently commissioned Noatak microgrid project and the award winning Shungnak microgrid project. Dave lives and works in Fairbanks Alaska.

Dave Myers, Senior Project Manager, STG Incorporated



Dave has 30 years of construction and project management experience along with four years of service in the U.S. Navy Reserves. Throughout his career he has worked extensively across government contracting, rural infrastructure, and oil and gas. During the early years of his career, Dave worked in the field in remote areas of Alaska, overseas, and in the contiguous United States where he provided site management for high risk federal projects; notably the Total Environment Restoration Contract and early Missile Defense civil works and installation of the first six missile silos at Ft. Greely. During his 20-year tenure at STG and Alaska Crane, he has served many roles, from Project Manager to Business Development. His energy infrastructure experience includes the development and construction of microgrid energy system installations including utility size wind-diesel hybrid systems in 30 isolated arctic and subarctic communities and oil and gas infrastructure above the Arctic Circle. In his current role at STG, Dave leverages his technical expertise to help develop innovative sustainable solutions to infrastructure projects using value engineering practices to best serve the needs of clients and other project stakeholders while ensuring that projects are safely built on-time and on-budget.

Matt Perkins, CEO, Alaska Renewables LLC



Matt Perkins is the CEO of Alaska Renewables LLC, an innovative large-scale energy development firm. He is a lifelong energy entrepreneur and believes that all business models and infrastructure should be implemented in direct response to listening to and studying the needs of the communities to be served, grounded in engineering, economics, and environmental justice. Matt spent ten years in sales and product leadership roles at General Electric living and working in China and the US before joining a high-efficiency air conditioning startup (7AC) as Chief Marketing Officer.

After 7AC was acquired by Emerson, Matt co-founded Alaska Renewables to harness the vast potential of renewables to deliver a transformative, clean, sustainable, reliable, and cost-reducing energy supply for Alaska. Outside of work he is a competitive runner & skier, a semi-professional singer, and volunteers on a suicide hotline and leading at-risk youth on camping trips. Matt studied Materials Science and Engineering at Cornell University.

Chris Rose, Executive Director, Renewable Energy Alaska Project (REAP)



Chris Rose is the founder and Executive Director of Renewable Energy Alaska Project (REAP), a non-profit coalition of diverse energy stakeholder organizations working to increase the development of renewable energy and promote energy efficiency across Alaska. Before establishing REAP in 2004, Mr. Rose had a private law practice for over a decade that included work in remote Northwest Arctic villages and the mediation of a variety disputes around the state. He has written a monthly opinion column for Alaska's only statewide newspaper and served on various statewide boards including the state's Renewable Energy Fund Advisory Committee. Since 2008, that Fund has granted over \$300 million to more than 90 renewable energy projects that are displacing the equivalent of 30 million gallons of diesel fuel every year. He has lived in the Matanuska Valley 65 miles northeast of Anchorage for over 30 years.

Since 2008, that Fund has granted over \$300 million to more than 90 renewable energy projects that are displacing the equivalent of 30 million gallons of diesel fuel every year. He has lived in the Matanuska Valley 65 miles northeast of Anchorage for over 30 years.

Marty Schwarz, Power Systems Modeller, National Renewable Energy Laboratory (NREL)



Marty Schwarz has been a power systems modeler at NREL since 2019. He runs capacity expansion, production cost, power flow, and resource adequacy simulations of utility-scale electrical grids to aid the integration of large amounts of renewable energy. Marty's recent work has focused on highly detailed modeling of smaller grids, such as the Alaskan Railbelt system. His work before NREL involved power grids of various sizes. From 2018-2019, he studied historical wind generation in India on a Fulbright Grant. Prior to India, he worked as an electrical engineer, designing highly redundant microgrids for data center campuses at Morrison Herschfield in Baltimore. Before Baltimore, he

worked as a maritime engineer, designing and running small, self-contained microgrids aboard large oceangoing vessels. Marty graduated from Carleton College in 2014 with a Bachelors in Physics. As an avid mountaineer, skier, and sailor, Marty has spent lots of quality time in SE Alaska. This time included navigating the inside passage on a small sailboat and crewing a commercial salmon fishing vessel. This is his first time visiting Southcentral Alaska; but it won't be his last!

Darron Scott, President/CEO, Kodiak Electric Association (KEA)



Darron Scott is the President/CEO of Kodiak Electric Association (KEA) which is the electric cooperative for Kodiak, Alaska. Under his 15 year tenure, KEA has moved from a diesel/hydro electric system to the forefront of renewable integration supplying the citizens of Kodiak with 99.7% renewable energy. This comes from a combination of hydroelectric and wind power utilizing battery energy storage and flywheel energy storage. Prior to his work at KEA, Darron worked as an Engineer and Manager for TXU, an IOU in Texas. Darron has a BSME in

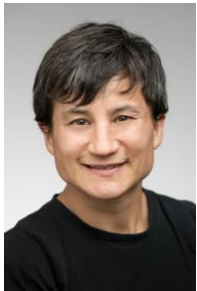
Mechanical Engineering from Texas A&M University

Heather Shilton, Director, Nunavut Nukkiqsautiit Corporation



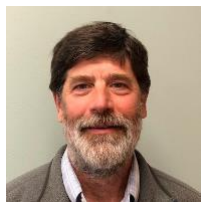
Heather oversees a number of renewable energy and energy efficiency initiatives in the Qikiqtani Region of Nunavut in her role as Director at Nunavut Nukkiqsautiit Corporation. She has a Bachelor's degree in Geography, Environmental Studies, and History from Mount Allison University and a Master's degree in Cultural Analysis and Social Theory from Wilfrid Laurier University. She currently serves on the Board of the Arctic Renewables Society and is an appointed member to the Sustainable Development Advisory Council for Environment and Climate Change Canada. She is a Certified Environmental Professional with a specialization in Energy and has a Certificate in Energy Engineering and Conservation from Dalhousie University. She was recently named as one of Canada's Top 30 Under 30 Sustainability Leaders by Corporate Knights and one of Canada's Top 100 Women in the Energy Transformation. She currently lives in Iqaluit with her partner David and their dog, Scout.

Mariko Shirazi, Research Professor, Alaska Center for Energy & Power



Mariko Shirazi received a B.S. degree in mechanical engineering from the University of Alaska, Fairbanks (UAF), in 1996 and a M.S. and Ph.D. degrees in electrical engineering from the University of Colorado, Boulder, in 2007 and 2009 respectively. From 1996 to 2004, she was an Engineer at the National Renewable Energy Laboratory's (NREL's) National Wind Technology Center, where she was involved in the design and deployment of wind-diesel hybrid power systems for village power applications. From 2009 to 2017, she was with the Power Systems Engineering Center, NREL, where she was involved in the design and construction of power electronics for microgrid applications and was also detailed for two years to assist with the design and commissioning of NREL's Energy Systems Integration Facility. Mariko currently serves as the President's Professor of Energy for the UA, where she is interested in bridging power electronics and power systems research to understand the performance of converter-dominated microgrids.

Bill Stamm, President and CEO of Alaska Village Electric Cooperative



Alaska Village Electric Cooperative, (AVEC), is a member-owned electric cooperative serving 58 rural communities throughout Alaska. Mr. Stamm joined AVEC in 1993 and has been involved at many levels in the cooperative's operation, maintenance and design of energy infrastructure and business systems; including as laborer, Assistant Construction Manager, Line Superintendent and Engineering Manager. AVEC owns and operates 48 diesel power plants as prime power for its isolated grids and has integrated 32 wind turbines in 14 locations serving 20 communities. Mr. Stamm earned his Bachelor of Science in Civil Engineering at the University Connecticut and is a Professional Engineer registered in the State of Alaska.

Malek Tawashy, M.Sc. CEO, Northern Energy Capital



Malek is the Founder and CEO of Northern Energy Capital (NEC), a renewable energy development company that empowers northern and remote communities in their transition from fossil fuel consumption to clean energy asset ownership. Malek is also a Board Member of a number of Inuit and First Nation-owned renewable energy companies in the Yukon and Nunavut. He has a Master of Science in International Construction Management and brings over 16 years of experience developing large-scale capital projects ranging from \$25M to \$200M. Malek is responsible for leading Northern Energy Capital's diverse portfolio of clean energy projects through development, construction and operations. Outside the office, Malek runs a competitive sailing team and mentors indigenous youth pursuing careers in the clean energy sector.

Russell Thornton, Vice President G&T System Control, Chugach Electric Association (CEA)



Russell Thornton has been a practicing Electrical Engineer for 35 years working in the project across Alaska. Russell earned his Bachelor of Science Electrical Engineering Degree in 1988 and became a licensed Electrical Engineer in 1994. Russell has worked for the State of Alaska, Nana Worley Parsons, and Electric Power Systems performing electrical design for industrial and utility projects. Russell started working for Chugach Electric in 2000. In his many roles at Chugach, Russell spent 7 years performing steady state and dynamic stability studies of the Chugach system and the Railbelt interconnection. In his current position he represents Chugach on several Railbelt committees including the Bradley Lake Operating Committee and the Alaska Intertie Operating Committee. A key part of his role at Chugach is the operation of generation resources to meet Chugach Member load and working cooperatively within the Railbelt for the safe and reliable operation of the Railbelt Electrical Interconnect.

Jeremy Vandermeer, Research Assistant Professor, Alaska Center for Energy & Power (ACEP)



Jeremy received a B.S. degree in electrical engineering from the University of Waterloo, Waterloo, ON, Canada, in 2011, and a M.S. degree in renewable energy engineering from the University of Oldenburg, Oldenburg, Germany, in 2014. Since 2014, he has been a Research Engineer and then Research Assistant Professor (2021) with the Alaska Center for Energy and Power (ACEP), University of Alaska, where he focuses on the challenges of integrating large amounts of renewable energy onto microgrids and weak regional grids. He co-wrote the MiGRIDS simulation software that simulates a hybrid-diesel microgrid. He also participates in renewable energy integration research and testing at

the ACEP Power Systems Integration Laboratory, including the grid forming and load sharing capabilities of inverters and the impact of renewables on diesel generator operation and efficiency.

Dr. Erin Whitney, Director, Arctic Energy Office



Dr. Erin Whitney is the Director of the Arctic Energy Office. In this role, she leads the Arctic Energy Office mission to bring the Arctic to the U.S. Department of Energy and Department of Energy to the Arctic. Director Whitney is based in Alaska, and works with Arctic stakeholders to work in innovative ways to meet the energy, science, and national security needs of the United States and its allies. She implements the Department of Energy's Arctic Strategy to facilitate national energy policies and initiatives. As a former member of the research faculty at the Alaska Center for Energy and Power (ACEP) and previously as a staff scientist at DOE's National Renewable Energy Laboratory (NREL), she

brought a wealth of experience and deep knowledge of Arctic issues when she joined the Arctic Energy Office in January 2023. While at ACEP, she founded and directed its thriving Solar Technologies Program, managed the Data Collection and Analysis Program, and led ACEP's work on the Alaska Affordable Energy Strategy that highlights Alaska's technology-specific energy development needs. She also led a multi-year National Science Foundation project exploring food, energy, and water security, and led the University of Alaska's regional partner team for the Energy Technology Innovation Partnership Project (ETIPP). Dr. Whitney coordinated a range of activities to integrate hydrogen with Alaska's energy systems, including the launch of the Alaska Hydrogen Working Group. Dr. Whitney was a 2022-23 Fulbright U.S. Scholar to Germany at the Fraunhofer Institute of Solar Energy in Freiburg, studying hydrogen energy systems for remote microgrids. From her time at NREL, Dr. Whitney has a strong research background in materials R&D, energy analysis, energy efficiency and energy storage. She earned a bachelor's degree in chemistry from Williams College in Massachusetts and a Ph.D., in physical chemistry from the University of Colorado.