

ENSURING REGIONAL RELIABILITY AND RESOURCE ADEQUACY IN ACHIEVING CLIMATE GOALS IN THE PACIFIC NORTHWEST

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SPEAKER BIOS



MATT MORRISON

CEO

PACIFIC NORTHWEST ECONOMIC REGION (PNWER)

Matt Morrison serves as CEO of the Pacific NorthWest Economic Region (PNWER) which was established in 1991 by statute in the states of Alaska, Washington, Idaho, Montana, and Oregon, and the western Canadian provinces of British Columbia, Alberta, Saskatchewan, the Yukon, and Northwest Territory. The mandate of PNWER is to build the region's economy while enhancing the region's natural environment. PNWER's 15 working groups focus on trade and border issues, economic development, agriculture, energy and environment, invasive species, tourism, transportation, and workforce, among several others.

Mr. Morrison is a leader in promoting innovation in the Canada-U.S. border region and has been instrumental in several successful pilots of the Beyond the Border and Perimeter Security Action Plan. PNWER has encouraged both Ottawa and Washington, D.C. to consider the region a 'cross-border pilot zone' because of the network of trusted relationships built by the ongoing working groups that PNWER facilitates. Along with his role at PNWER, Mr. Morrison is Co-Chair of the Future Borders Coalition (www.futureborderscoalition.org), a group of public and private organizations bringing solutions to border issues in all modes at the Canada – U.S. border. The FBC is currently working on COVID resilience and solutions to safely easing border restrictions based on science and health standards. Mr. Morrison also manages PNWER's Center for Regional Disaster Resilience.

Mr. Morrison lives in Seattle with his wife, Beth. He and Beth have four adult children with whom they enjoy skiing, sailing, and hiking.



DR. STEVEN ASHBY

DIRECTOR

PACIFIC NORTHWEST NATIONAL LABORATORY

Dr. Steven Ashby has served as the Director of the Pacific Northwest National Laboratory (PNNL) since April 2015. He is responsible for establishing the Laboratory's vision and setting its strategic direction. Under his leadership, PNNL's exceptional staff are advancing the frontiers of science and addressing complex challenges in energy, the environment, and national security. In particular, the Laboratory is providing national leadership in climate science, the power grid, nuclear nonproliferation, and environmental remediation.

Dr. Ashby previously served as PNNL's Deputy Director for Science and Technology, and was responsible for integrating PNNL's science and technology capabilities to meet national needs. Toward that goal, he led institutional strategic planning activities, stewarded an \$80M discretionary research portfolio, and promoted Laboratory-wide efforts to elevate PNNL's standing in the broader scientific community.

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(Cont. from last page) He also oversaw the Laboratory's technology commercialization, government relations, and research integrity functions. He served as a member of DOE's Laboratory Operations Board and was past chair of the DOE National Laboratory Chief Research Officers Working Group, which advises the National Laboratory Director's Council on scientific and programmatic issues.

Before joining PNNL in 2008, Dr. Ashby spent nearly 21 years at Lawrence Livermore National Laboratory (LLNL), ultimately serving as Deputy Principal Associate Director for Science and Technology. He previously oversaw the activities of the 500-person Computing Applications and Research Department. Dr. Ashby was the founding director of LLNL's Center for Applied Scientific Computing, which was established in 1996 and has since matured into one of the world's premier scientific computing research organizations.

In 2013, Dr. Ashby was elected a Fellow of the American Association for the Advancement of Science in the mathematics section for "exceptional technical contributions and scientific leadership in applied mathematics and computational science, particularly the development of novel numerical methods and robust software for parallel computers, as well as for exemplary service to the field of computational science and engineering." He also was elected to the Washington State Academy of Sciences in 2013. He holds a B.S. in Mathematics/Computer Science from the University of Santa Clara. He earned his M.S. and Ph.D. in Computer Science from the University of Illinois at Urbana-Champaign.

OPPORTUNITIES AND CHALLENGES



FRANK AFRANJI
PRESIDENT
NORTHWEST POWER POOL

Frank Afranji is President of the Northwest Power Pool where he is responsible for the management and coordination of various programs and services provided by the Power Pool. Prior to joining NWPP Afranji served as Director of Transmission and Reliability Services for Portland General Electric where he was responsible for various aspects of the gas and electric transmission system including capacity sales, contract administration, transmission scheduling, high voltage regional transmission planning, industry restructuring and Balancing Area activities. Afranji served on and chaired a variety of WECC and NERC committees. Afranji earned Bachelor and Master degrees in engineering at Southern Illinois University at Carbondale, Illinois and Master of Business Administration from Portland State University.



ARNE OLSON
SENIOR PARTNER
ENERGY AND ENVIRONMENTAL ECONOMICS, INC.

Arne Olson helps clients navigate changes to bulk electric system operations and investment needs brought about by aggressive government policies promoting clean and renewable energy production. He has consulted extensively for utilities, electricity system operators, asset owners, project developers, electricity consumers, and regulators. In 2013 he led the technical analysis and drafting of the landmark report, Investigating a Higher Renewables Portfolio Standard for California, prepared for the five largest utilities in California, documenting the challenges of and solutions for achieving a 50 percent renewable grid in California by 2030.

Arne has 25 years of experience in energy analysis, and he is a frequent speaker at energy conferences on the role renewable energy will play in decarbonizing the grid. Prior to joining E3 in 2002, he served six years in the Energy Policy Division of the Washington State Energy Office and its successor agencies.

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(Cont. from last page) Education: MS, international energy management and policy, University of Pennsylvania and the Institut Français du Pétrole; BS, statistics, and BS, mathematical sciences, University of Washington

PANEL #1: ENSURING REGIONAL RELIABILITY WITH A CHANGING RESOURCE MIX



MODERATOR: BOB ROWE
PRESIDENT & CEO
NORTHWESTERN ENERGY

Bob Rowe has been NorthWestern Energy's President and CEO since August 2008. Co-Chair of the Institute for Electric Innovation, an Institute of the Edison Foundation focused on advancing the adoption of innovative and efficient technologies among electric utilities and their technology partners that will transform the power grid; a member of the EEI Board of Directors Executive Committee; a member of the American Gas Association Board of Directors; Western Energy Institute past chair and current executive committee member. Bob has over 20 years of energy and utility industry experience.



DAVID ANDERSON
PRESIDENT & CEO
NW NATURAL

Mr. Anderson serves as NW Natural's President and Chief Operating Officer and previously served as Executive Vice President of Operations and Regulation, and as Senior Vice President and Chief Financial Officer. Before joining NW Natural, Mr. Anderson was Senior Vice President and Chief Financial Officer at TXU Gas. He previously held executive positions within TXU Corporation (formerly Texas Utilities) including Senior Vice President and Chief Accounting Officer, and Vice President of Investor Relations and Shareholder Services.

Mr. Anderson is also a director on the following boards: American Gas Association, American Gas Foundation Board, Oregon Business Council, Member of SOLVE's Founders' Circle. He has also been appointed by Oregon Governor Kate Brown to serve on Oregon's Global Warming Commission.

Mr. Anderson was elected to the National Fuel Gas Board of Directors June 2019. Anderson serves on the Audit and Compensation Committees.

He is a past board member of Portland State University Foundation (Investment Committee Chair), Northwest Gas Association, Portland Business Alliance, Greater Portland Inc., a past president of Oregon Partnership (Lines for Life), past chair of Associated Oregon Industries (AOI) Fiscal Policy Committee and a past advisory board member for PSU School of Business and Oregon Department of Education Business Advisory Team. Mr. Anderson holds a BBA in Accounting from Texas Tech University and is a CPA (ret.) and CGMA.



DAVID BENNETT
DIRECTOR, RENEWABLE GAS & LOW CARBON FUELS
FORTISBC

David A. Bennett is Director, Renewable Gas and Low Carbon Fuels for FortisBC Energy Inc. He is responsible for providing leadership to growing our renewable energy portfolio, which is a key component focused on our transition to a low-carbon future.

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In his former role he was responsible for all corporate and customer communications and public affairs including municipal, provincial and federal government and indigenous relations, including managing FortisBC's consultation on its major infrastructure projects.

David has been involved in the energy industry for over 30 years, holding positions with Shell Canada, Westcoast Energy and FortisBC. During that time, his roles have included work in marketing and customer service, gas supply, business development, energy efficiency and conservation programs, public affairs and communications.

David is a Director on the Surrey Board of Trade, the Private Sector Co-Chair of the Pacific Northwest Economic Region, a member of the Executive Committee and Policy Chair of the National Electricity Roundtable and Chair of the Invasive Species Council of British Columbia. David holds a Bachelor of Science degree from the University of Victoria with a double major in economics and computer science.



MARY KIPP
PRESIDENT & CEO
PUGET SOUND ENERGY

Mary E. Kipp was named president of PSE in August 2019 and CEO in January 2020. Under her direction, PSE is leading the way to a clean energy future in partnership with its customers and the communities it serves.

Mary joined PSE from El Paso Electric (EPE), where she served as chief executive officer since 2015 and president since 2014. Under her leadership, EPE—also a 100-year-plus company with a deeply-rooted community history—evolved to serve a diverse customer base spread across a mountain west region and growing border communities. With EPE since 2007, Mary held a variety of leadership roles throughout the company, including General Counsel, regulatory and rates, risk management, human resources, external affairs, customer care, environmental and safety.

Prior to EPE, Mary was a prosecuting attorney for FERC for four years, investigating and prosecuting violations of federal energy laws. Mary also worked as a lawyer at El Paso Natural Gas Company and at Greenberg Traurig, LLP.

Mary is a member of the Board of Directors of ASE (Alliance to Save Energy) and is immediate past chair of SEPA (Smart Electric Power Alliance). She is also past deputy chair of the Federal Reserve Bank of Dallas; past chair of the Borderplex Alliance; and past executive committee member of the Texas Business Leadership Council.

Mary received a Bachelor of Arts degree from Williams College, a Juris Doctor degree from The University of Texas School of Law, and is an alumnus of Exeter College, Oxford University. Mary lives in Seattle and has two children.



MARIA POPE
PRESIDENT & CEO
PORTLAND GENERAL ELECTRIC

Maria Pope is president and CEO of Portland General Electric, Oregon's largest electric company. Pope joined PGE in 2009 as chief financial officer and treasurer. She also oversaw the company's power generation facilities, wholesale power marketing and long-term resource strategy as senior vice president of Power Supply, Operations and Resource Strategy. From 2006 to 2008, she was a member of PGE's board of directors.

PANEL #2: WHERE IS THE MARKET HEADED: MARKET FORCES AND EXPECTATIONS ON DECARBONIZATION OF BOTH TRANSPORTATION AND POWER



MODERATOR: KEN DRAGOON
DIRECTOR OF HYDROGEN DEVELOPMENT
OBSIDIAN RENEWABLES

Ken founded the Renewable Hydrogen Alliance in 2018 and served as its Executive Director until January 2021 when he became Director of Hydrogen Development for Obsidian Renewables. He is a three-plus decade veteran of the electric power industry in the Pacific Northwest, focused almost entirely on providing reliable power service with variable renewable resources. He authored "Valuing Wind Generation on Integrated Power Systems," a book on calculating wind integration costs in 2010.



MICHEL ARCHAMBAULT
DIRECTOR, BUSINESS DEVELOPMENT
CUMMINS INC.

Michel is a mechanical engineer with close to 20 years experience in the hydrogen sector. He is currently a Business Development Director at Cummins Inc. His main areas of focus are renewable hydrogen production, power-to-gas, infrastructure and fuel cell for electric mobility. He enjoys traveling, learning languages and playing music.



MARK MONROE
PRINCIPAL INFRASTRUCTURE ENGINEER
MICROSOFT

Mark Monroe is a Principal Engineer in Microsoft's Datacenter Advanced Development group working on future systems for energy, water conservation, and automation. He is a Six Sigma Master Black Belt, with a focus on change acceleration in corporate settings. Mark led industry consortium including Infrastructure Masons and The Green Grid, and served on the board of directors for the Center for ReSource Conservation in Boulder, CO. He has a Master of Science in Mechanical Engineering from Virginia Tech.



JASON SEKHON
ADVANCED TECHNOLOGY RESEARCH SR. CONSULTANT
TOYOTA

Jason Sekhon is an Advanced Technology Research Senior Consultant at Toyota and responsible for expanding hydrogen infrastructure for fuel cell electric vehicles and piloting new applications of fuel cells in areas other than light duty passenger vehicles (for example, stationary power). Prior to joining Toyota, he worked at McKinsey & Co. where he led projects for automotive, transportation, and energy clients focused on vehicle electrification and charging infrastructure. He holds an MBA and MS in Natural Resources from the University of Michigan and a BS from Georgia Tech.

PANEL #3: CURRENT PROJECTS IN THE PACIFIC NORTHWEST, THE ROLE OF NEW AND EXISTING TECHNOLOGIES, AND A POSSIBLE VISION FOR THE FUTURE



MODERATOR: EVAN RAMSEY
SR. DIRECTOR, RENEWABLES PROGRAM
BONNEVILLE ENVIRONMENTAL FOUNDATION

Evan is a specialist in renewable energy systems and leads the project development and management activities for the Renewable Energy Group, which advances renewables in the Northwest with innovative and creative solutions. Evan has managed hundreds of small scale renewable projects and over 10-Megawatts of large commercial projects. The clients he has helped transition to renewable energy include Walmart, Safeway, Bayer, Hewlett Packard, Intel, local governments, and several universities. Evan is an accredited solar installation professional certified by the North American Board of Certified Energy Practitioners (NABCEP). He holds a Bachelor of Arts in Nature and Culture from the University of California at Davis. In addition to his schooling at UC Davis he has studied abroad in Chile, completed a Himalayan Ecology Field Study, and spent many years leading work in the backcountry of Kings Canyon National Park.



MICHAEL DUCKER
VP OF RENEWABLE FUELS AND WESTERN REGION
mitsubishi power

Michael J. Ducker is the Vice President of Renewable Fuels & Western Region at Mitsubishi Hitachi Power Systems Americas, a major equipment supplier and energy solutions provider for the power industry. Michael is responsible for overseeing the development and execution of MHPS's recently launched renewable fuels business, which focuses on delivering carbon-free fuel solutions to the power industry as well as other verticals. Michael is also responsible for Sales and Business Development of new power equipment within the western region of the US.

Prior to his current role, Michael was a founding member of and contributor to MHPS's NEXT division, which develops, launches, incubates, and turns over new businesses at the company. Prior to his role at NEXT, Michael established and led MHPS's Market Analysis Division. He started at the company on the Applications and Performance Engineering team in 2012. Before joining MHPS, Michael worked for the US Department of Energy. There, he developed market models to evaluate advanced energy technologies being pursued by the DOE.

Michael earned his BS in Mechanical Engineering from the Pennsylvania State University and his MS in Mechanical Engineering from the George Washington University.



GARY IVORY
GENERAL MANAGER
DOUGLAS COUNTY PUD

Gary Ivory has an Accounting Degree and an MBA from WSU. He worked for the Washington State Auditor's Office before joining Douglas PUD in 1997. He worked as the District's Chief Accountant, Auditor and Treasurer before being named General Manager in July 2017. He has held leadership roles in the community with the Bridgeport School Board and Wenatchee Valley Chamber of Commerce.



FRANK LAWSON
GENERAL MANAGER
EUGENE WATER AND ELECTRIC BOARD

Frank Lawson became general manager of the Eugene Water and Electric Board in June 2016. As general manager, Frank directs an approximately 500-employee utility that serves about 200,000 people with electricity and water in the Eugene metropolitan area and the lower McKenzie River Valley.

Frank has over 30 years of technical and management experience in various areas including engineering, marketing, operations, customer service, sales, and finance. During his career, he has lead the development and launch of technology, products, systems, and services used in power generation and delivery, drinking water treatment, pharmaceutical and semiconductor manufacturing, and a variety of other industries. He has worked for small entrepreneurial organizations, as well as large companies including Danaher, Pacific Scientific, and JELD-WEN. More recently, as EWEB's Electric Systems Engineering Supervisor, Frank was responsible for many aspects of electric transmission & distribution infrastructure planning, system reliability and regulatory compliance, capital financial planning, and capital project execution for the utility.

Frank is a registered Professional Engineer in the State of Oregon. He earned a Bachelor of Science Degree in Electrical and Computer Engineering from Oregon State University, and a Master of Business Administration from Northwest Christian University.



CLAY NORRIS
POWER SECTION MANAGER, POWER MANAGEMENT
TACOMA POWER

Clay has served as the Power Management (PM) Section Manager since 2015. He is the utility officer responsible for wholesale power trading and operations, resource planning and power contracts, DER programs, energy R&D, and energy policy. He brings over 35 years of experience to his role. Before joining Tacoma Power in 2015, Clay worked for Eugene Water and Electric Board, Northwest Energy Efficiency Alliance (NEEA), and ElectriCities of North Carolina in executive positions. He has served on several regional and national boards and executive committees, including the North American Energy Standards Board, SERC, the North Carolina Transmission Planning Collaborative, Public Generating Pool, Energy Northwest, and Public Power Council.

Clay obtained a B.A. in math and physics from Illinois College, a B.S. in electrical engineering from Missouri University of Science and Technology, and an MBA from the University of Illinois – Springfield.