

Session 102 | No Water, No Energy, No Food: Managing the Nexus

Monday, October 2, 2017

10:30 am–12:00 pm

Room N426b

Water is the foundational resource for both energy and food production within the Water-Energy-Food (WEF) Nexus. Tensions between managing these resources will continue to grow due to increasing world population and impacts from climate change. Organized in collaboration with The Water Council, this session deals with the practicalities and economics of how industries can contribute to managing the WEF Nexus. Case studies will be presented by leading companies from the food & beverage, energy, and technology sectors to show how the implementation of structured water management programs have resulted in improved economic performance and minimized risk across a company's entire supply chain. The final presentation will outline the future market potential between the WEF Nexus and manufacturing industries. This session will conclude with a moderated speaker panel discussion along with Q&A from the audience.

Speakers include:



Kim Marotta

Global Senior Director Corporate Responsibility,
Molson Coors

Discussion Topic: “No Water, No Beer...”

Speaker Biography:

Kim Marotta is the Global Senior Director Corporate Responsibility for Molson Coors, a position she has held since December, 2016. In her role, she is responsible for building and leading the global sustainability for the company. Kim joined the beer business in 2004, and held similar positions for MillerCoors, the U.S. subsidiary of Molson Coors.

Kim completed her undergraduate degree at Marquette University and is a graduate of the University of Wisconsin-Madison Law School. Prior to her career in beer, Kim was a criminal defense attorney for thirteen years and served as an adjunct professor at Marquette University Law School.

Kim is a current member of the board of directors for The Nature Conservancy-Wisconsin, and has served on numerous other local non-profit boards and organizations, including Milwaukee World Festivals, Alcohol Beverage and Medical Research Foundation and Children's Hospital Foundation.

David Garman
Chief Technology Officer, The Water Council



Discussion Topic: “Water Energy Nexus Technology Roadmap”

Speaker Biography:

David leads The Water Council’s Research & Commercialization Program, while continuing his role as Associate Vice Chancellor for Water Technology Research & Development at the University of Wisconsin-Milwaukee (UWM). Headquartered in Milwaukee, Wisconsin, The Water Council was formed in 2009 to drive economic, technology and talent development to support the global water industry. With over 190 members and 200 water technology companies in the Wisconsin Water Technology Cluster, the organization convenes global water leaders and supports businesses, utilities, government agencies, education programs and non-profits, with valuable services, programming and networking opportunities.

At UWM, he is responsible for strategic water visioning, stimulating interdisciplinary research and translation of research for industry, major funding acquisition in this area, and new water technology development. Previously serving as president and chairman of the International Water Association (IWA), David now serves as co-Chair of the Distinguished Fellows Committee for IWA. He was Founding Dean of UWM’s School of Freshwater Sciences. Dr. Garman’s career has covered the full range of environmental management—from water resources and pollution control, to commercialization of new environmental technologies.



Mark Yin
Shell Technology Center

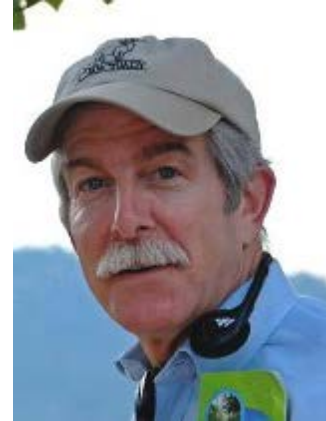
Discussion Topic: “Water Reclamation at a Major Shell Plant”

Speaker Biography:

Mark Yin has worked extensively on water and wastewater treatment of petrochemical industry. His skills are for water and wastewater treatment for both upstream and downstream, including refinery and chemical plant wastewater, cooling water, boiler feed water, desalting, overhead wash water, sour water, produced water treatment and disposal, water flooding in oil fields, etc. He has worked for Shell Oil Company for last 20 + years in various positions including the Shell Westhollow Technology Center, Shell Global Solutions in Malaysia, Shell China E&P Company, and now with Shell Technology Center Houston. Dr. Yin has a Master’s Degree in Civil and Environmental Engineering from Rice University, and a Ph.D in Civil Engineering from UCLA.

Paul Bowen

Director, Sustainable Operations, The Coca-Cola Company



Discussion Topic: "Risks to Opportunities"

Speaker Biography:

Paul Bowen is responsible for delivering on Company commitments in water, energy, and packaging, and for embedding environmental sustainability across all Coca-Cola System operations. He has been with The Coca-Cola Company since 1999 and serves as a technical expert for developing water reuse with corporate quality standards and SME on water and wastewater treatment issues for The Coca-Cola Company worldwide. His work helped reduce water use ratio (volume of water per volume of product produced) of bottling operations by almost 50% since 2002.

He currently serves on the Board of Trustees for the Water Environment Federation and is the Immediate Past President of the Board. He has also served as a member of the Board of Directors for Water for People. Paul is The Coca-Cola Company's representative on the Beverage Industry Environmental Roundtable (BIER), an organization he helped start. Paul has a BS in Chemistry & Natural Systems from Mercer University and MS and Ph.D. in Environmental Systems Engineering from Clemson University.



Rowlan Greaves

Manager, Southwestern Energy, Strategic Solutions

Discussion Topic: "Balancing Water Use and Giving Back to the Environment"

Speaker Biography:

Rowlan Greaves is a manager with Southwestern Energy's Strategic Solutions team. Strategic Solutions is a small corporate team tasked with developing operational opportunities which find the balance between community, economy and the environment.

Rowlan joined SWN in 2010 as a Facilities Engineer assigned to the Fayetteville Shale Division before moving to Strategic Solutions in 2013. Prior to SWN, Rowlan worked for 10 years supporting the oil and gas industry in a consulting role, with an emphasis on water resources. He also currently serves as Secretary of the Energy Water Initiative (EWI), a collaborative effort among oil and gas operators to study and improve water use and management across the industry. He holds a bachelor's degree in civil engineering from Texas A&M University.

Steve Gluck
BlueTech Research

Discussion Topic: “New and Emerging Technologies at Play Within the Nexus”

Speaker Biography:

Steve Gluck of BlueTech Research is an independent consultant assisting companies in a broad range of water and wastewater technology needs currently serving companies in filtration, BOD removal technology, selective absorption forward osmosis and wastewater market and technology research. In his previous roles he was a Fellow in Dow Water & Process Solutions R&D responsible for applications development and technology scouting in water and wastewater markets beyond established business markets. He received a PhD from the University of Leipzig and has over 40 years of R&D experience. He has served in various WEF roles and is currently active in the Industrial Committee.



Session Facilitators are:



Mark Knight
Technical Specialist, GE Water & Process Technologies

Facilitator Biography:

Mark Knight is a Technical Specialist for GE Water & Process Technologies. With over 10 years of experience, he is responsible for improving the economic & environmental performance of industrial clients by providing insights to understanding opportunities & risks, developing short term strategies and implementing long term solutions. Mark is a member of WEF’s Industrial Wastewater Committee and the Chair of the Refining Subcommittee. Mark has published and presented on topics including the Water-Energy-Food Nexus, The Value of Water, and Industrial Wastewater

Treatment. Mark has a Master’s degree in Environmental Applied Science & Management and is a Professional Engineer.

Tom Sandy
Vice President, Brown and Caldwell

Facilitator Biography:

Tom Sandy is a Vice President and the Associate Director of Industrial Water for Brown and Caldwell’s Private Sector Enterprise Industrial Water Service Line. He has over 30 years of experience in industrial water/wastewater treatment; reuse; cooling towers; brine recovery; industrial pollution prevention program studies; and design of physical, chemical, and biological treatment systems. He is accomplished in the operation, maintenance and control of biological, chemical and physical water/wastewater treatment



processes. Mr. Sandy experience includes the management and design of residuals/solid waste treatment processes associated with water/wastewater treatment. His experience also includes stormwater and wastewater discharge permitting for industrial facilities. Mr. Sandy's water/wastewater experience spans across the Chemicals, Food & Beverage, Oil and Gas, Pharmaceuticals, Petrochemicals, Power, Landfill, Mining, and Manufacturing industries. He is a licensed Professional Engineer in various states including his home state North Carolina. He has a Master's of Science degree in Civil and Environmental Engineering and Bachelor of Arts degree in Chemistry from West Virginia University. He is the outgoing Industrial Symposium Chair for WEFTEC's Technical Program as well as member of the Industrial Wastewater and Rudolf Awards Committees. He has been a member of the Water Environment Federation since 1985.