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RENEWABLE GAS 360

JANUARY 22-23, 2020 | SACRAMENTO, CA

Sheraton Grand Sacramento Hotel

SYMPOSIUM PROGRAM 2020



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Mitigate the Leading Source
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Capture Methane Emissions
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Disadvantaged Communities



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WELCOME

LETTER FROM THE ORGANIZER

I am pleased to welcome you to our annual symposium, Renewable Gas 360. Since its inception in 2015, the Renewable Gas 360 symposium (formerly Rethink Methane) has raised awareness among California's policymakers of the important role that renewable gases can and should play to accelerate the state's push to reduce greenhouse gas and criteria pollutant emissions, enhance the diversity and resiliency of energy resources, and cost-effectively foster a thriving, equitable, and sustainable economy.

For 2020, organizers and sponsors opted to "rethink" the name of the event to reflect the symposium's content, which has always focused on a broad range of renewable gases, including renewable hydrogen, propane, synthetic gas, and methane. This new and updated name better encapsulates the discussion that we have conducted over the past five years: that of the vast potential that renewable gases hold for California and the ability to grow the capacity of the state to harness the social and economic potential of the valuable feedstock once known as "waste".

Panels and discussions throughout the day's event will bring together energy policy experts to address the future of the gas utility in a carbon constrained world, leaders from California's innovative dairy energy projects to provide insight into the steps stakeholders are taking to capture and reuse renewable dairy gas, and both hydrogen and fuel cell experts to discuss the emerging blueprint for a renewable hydrogen future.

For this year's event, organizers have expanded the program to bring attendees a session covering advances in power-to-gas technology, exploring how renewable gases, such as renewable hydrogen, can—and must—be derived from wasted renewable electricity in order to realistically develop the 100% renewable electrical grid that the state seeks to create by 2045.

Attendees can also look forward to sessions dedicated to the findings of two critical new industry studies. The studies' principal authors and contributors will be providing insight into how to create a roadmap for renewable hydrogen in California and seek to answer the often-asked question, how much RNG supply is possible in California and nationwide?

This year's conference will also present a new panel focusing on the benefits of renewable propane, a byproduct of a rapidly growing renewable diesel industry. This session will cover how renewable propane can be utilized to bring energy stability to an increasing number of communities experiencing energy uncertainty.

Renewable Gas 360 is made possible by the generous support of our sponsors, who not only provide the financial resources that make our program possible, but also contribute their time, energy, and perspective to help prepare a fresh and action-oriented discussion each and every year. All of the event sponsors deserve our deepest gratitude, but it is especially important to mention Wayne Natri (South Coast Air Quality Management District), Jack Broadbent (Bay Area Air Quality Management District), Maryam Brown (Southern California Gas Company), and David Lewis (Pacific Gas & Electric). These forward-thinking leaders understand that harnessing the state's organic waste and surplus renewable power is absolutely necessary to reduce the impact of human activity on the environment. These organizations have supported the event since its inception in 2015, and for that, we are perpetually grateful.

The largest annual event of its kind, Renewable Gas 360 presents California policymakers with the opportunity to hear from a diverse group of experts across industry about the progress, challenges, and potential of creating a market for renewable gases in California. It is our hope, and the hope of our sponsors and endorsing organizations, that you will take the knowledge you gain here today and use it to continue to create and implement bold and sustainable public policy for California.

Thank you for taking time out of your busy schedule and welcome to Renewable Gas 360.



Cliff Gladstein

President

Gladstein, Neandross & Associates



**CLEAN TRANSPORTATION
& ENERGY CONSULTANTS**



2020 SYMPOSIUM AGENDA

WEDNESDAY, JANUARY 22, 2020

6:00 pm – 8:00 pm

Kick-off Reception

THURSDAY, JANUARY 23, 2020

8:00 am – 8:30 am

Continental Breakfast

8:30 am – 8:40 am

Symposium Welcome

• **Hector De La Torre**, *Gubernatorial Appointee, California Air Resources Board*

8:45 am – 8:55 am

Welcome Keynote

• **Cliff Gladstein**, *President, Gladstein, Neandross & Associates*

9:00 am – 10:10 am

Panel Discussion: Rethinking the Role of the Gas Utility in California's Renewable Energy Future

*Moderator: **Lawrence Lingbloom**, Chief Consultant, California State Assembly Committee on Natural Resources*

• **Michael Colvin**, *Director of California Energy Program, Environmental Defense Fund*

• **Angelina Galiteva**, *Cal ISO Board of Governors*

• **Sharon Tomkins**, *Vice President, Strategy and Engagement, and Chief Environmental Officer, Southern California Gas Company*

10:10 am – 10:25 am

Networking Break – Recharge with a brief coffee and networking opportunity.

10:25 am – 10:40 am

Low Carbon Renewable Natural Gas RNG from Wood Wastes

• **Dan LeFevers**, *Director of State and Consumer Programs at Gas Technology Institute*

10:45 am – 11:10 am

Introduction on Power to Gas

• **Jack Brouwer**, *Professor, Mechanical and Aerospace Engineering, University of California, Irvine; Director, National Fuel Cell Research Center*

11:15 am – 12:15 pm

Panel Discussion – Primer on New Power-to-Gas/Renewable Hydrogen Projects

*Moderator: **Katrina Fritz**, Executive Director of California Stationary Fuel Cell Collaborative*

• **Kevin Best**, *CEO, RealEnergy*

• **Sean Ebnet**, *Lead Business Developer, Orsted Markets and Innovation*

• **Greg S. Huynh**, *Operating Agent Manager, Los Angeles Department of Water and Power*

12:15 pm – 1:15 pm

Networking Luncheon

Welcome Remarks

1:15 pm – 1:30 pm

Afternoon Keynote

*Introduction: **Janice Lin**, CEO of Strategen, Founder and President of the Green Hydrogen Coalition*

• **Senator Nancy Skinner**, *Senate District 9*

1:30 pm – 1:35 pm

Introduction to ICF Report on Renewable Natural Gas Supply in U.S.

• **Emily O'Connell**, *Director, Energy Markets and Policy at American Gas Institute*

1:40 pm – 2:05 pm

Presentation on ICF Renewable Natural Gas Supply

• **Phillip Sheehy**, *Technical Director, ICF*

2:10 pm – 3:10 pm

Panel Discussion – Emerging Renewable Gas: Who Knew Propane Could Be Renewable?

*Moderator: **Chelsea Jenkins**, Executive Director, Government Affairs, ROUSH Clean Tech*

• **Larry Osgood**, *Advisor, Project Development & Optimization of Propane Education & Research Council*

• **Joy Alafia**, *President and CEO, Western Propane Gas Association*

• **Jeff Stewart**, *President of the Blue Star Gas*

2020 SYMPOSIUM AGENDA

THURSDAY, JANUARY 23, 2020

3:15 pm – 4:15 pm	Presentation and Discussion on Renewable Hydrogen Roadmap <i>Moderator: Jeff Reed, Chair of the California Hydrogen Business Council and Chief Scientist, Renewable Fuels and Energy Storage at the Advanced Power and Energy Program at University of California Irvine</i> <ul style="list-style-type: none">• Dave Edwards, Director and Advocate for Hydrogen Energy, Air Liquide• Lorraine Paskett, Board Member and Chair, Renewable Hydrogen Initiative, California Hydrogen Business Council• Rob Del Core, Managing Director, Business Development, Fuel Cell Power Systems, Hydrogenics
4:20 pm – 4:35 pm	Networking Break – Recharge with a brief coffee and networking opportunity.
4:40 pm – 5:40 pm	Panel Discussion – Strategies and Success: Harnessing Dairy RNG <i>Moderator: Michael Boccodoro, President, West Coast Advisors</i> <ul style="list-style-type: none">• Erin Grizard, Senior Director, Policy, Bloom Energy• Jenny Lester Moffit, Undersecretary at California Department of Food and Agriculture
5:45 pm – 6:15 pm	Beyond Power-Reimagining the Energy Ecosystem with Green Hydrogen <ul style="list-style-type: none">• Janice Lin, CEO of Strategen, Founder and President of the Green Hydrogen Coalition
6:15 pm – 7:00 pm	Networking Reception <i>Stop by our sponsors and learn more about RNG!</i>

SPEAKER BIOGRAPHIES



Joy Alafia, President and CEO of Western Propane Gas Association

Joy Alafia is the President & CEO of the Western Propane Gas Association (WPGA), an organization that values propane as part of California's clean energy economy. Under her direction, the association is focused on the commercialization of renewable propane as well as seeking other innovative propane technology developments. Joy serves as an advisory member for the California Energy Commission's Clean Transportation Program which supports the accelerated development and deployment of advanced transportation fuels and technologies. Her employment history includes the California Association of REALTORS®, CVI Melles Griot, Intel, Lawrence Livermore National Laboratory, and the Electrical Power Research Institute (EPRI).

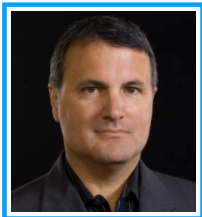
Joy also currently serves on the Board for the non-profit Building Diversity in Science, an organization committed to increasing the role of underrepresented groups in STEM careers. Joy has a BS in Physics from Spelman College and an MBA from Pepperdine University.



Kevin Best, Chairman and CEO, RealEnergy

Kevin Best is an energy developer and majority shareholder of RealEnergy, founded in 2000 by real estate and energy professionals. RealEnergy has developed, built, owned and operated more clean, onsite power plants than any independent power producer in North America.

RealEnergy is laser focused on developing a portfolio of low/negative carbon microgrids utilizing gas to electricity, electricity to gas including biogas plants producing onsite low carbon and renewable electricity for distributed electric vehicle charging producing recycled dry ice, liquid CO2 and CO2 products for low carbon LEED concrete construction. Food waste processing, renewable natural gas and EPA Class A organic fertilizers from waste are also specified in several current projects.



Michael Boccadoro, President, West Coast Advisors

Mr. Boccadoro has worked extensively for more than thirty-five years in public affairs and government relations. As President, Mr. Boccadoro is responsible for overseeing the firm's public affairs, regulatory affairs and governmental relations practices. With expertise in agriculture, energy, water, finance, resource planning, and environmental issues, Michael has extensive working relationships with legislators and other public officials involved in these areas. Before launching West Coast Advisors, he served as Managing Director of a trailblazing public affairs and campaign management firm. He also spent seven years as a senior consultant to the California Legislature.

Mr. Boccadoro has been deeply engaged in California's climate, energy, and environmental policy debates on behalf of the state's agriculture industries. He has also been instrumental in the development of California's distributed-renewable energy programs related to bioenergy. He established and continues to lead California dairy methane reduction efforts and the development of programs and policies designed to incentivize these projects.

Mr. Boccadoro received his B.A. in economics and political science from the University of California, Davis..



Jack Brouwer, Professor, Mechanical and Aerospace Engineering, University of California, Irvine; Director, National Fuel Cell Research Center

Through Dr. Jack Brouwer's leadership, the National Fuel Cell Research Center (NFCRC) and the Advanced Power and Energy Program are focusing research, education, beta testing, and outreach on high-efficiency, environmentally preferred energy conversion and power generation technology advancement with fuel cell and gas turbine systems as the principal targets. Current research projects address ultra-high efficiency and ultra-low emissions high temperature fuel cell systems, integrated hybrid fuel cell gas turbine systems, renewable power intermittency and integration, battery electric and plug-in hybrid electric vehicle evaluation and infrastructure development, advanced fuel cell and gas turbine dynamic operations, hydrogen and electricity infrastructure development, and power electronics and energy conversion devices for the smart grid.

Prior to joining UCI, Dr. Brouwer was on the faculty at the University of Utah, a senior engineer at Reaction Engineering International, and a staff scientist at Sandia National Laboratories.



Michael Colvin, Director, California Energy Program, Environmental Defense Fund

Michael Colvin is the Director, California Energy Program at Environmental Defense Fund. Based out of EDF's San Francisco office, Michael focuses on building decarbonization, gas utility business models, wholesale electricity markets and transportation electrification matters. Across each of these issues, Michael's focuses on minimizing investment risk and aligning utility incentives with affordable, clean and safe energy services. Prior to joining EDF, Michael spent 10 years at the California Public Utilities Commission working on various energy and utility safety matters.

Michael was energy advisor to former Commissioners Mark J. Ferron and Catherine J.K. Sandoval. Michael holds a Masters in Public Policy and a Bachelors of Science in Environmental Economics, both from the University of California, Berkeley.

SPEAKER BIOGRAPHIES



Sean Ebnet, Lead Business Developer, Ørsted Markets and Innovation

Sean Ebnet serves as Lead Developer for Ørsted Markets and Innovation. Ørsted is a partially State-owned Danish utility. Over the past decade the company has transitioned itself from a fossil fuels-based utility into a renewable energy business and the world's preeminent wind power developer. Ørsted was recently recognized by Global 100 Index as the most world's most sustainable utility. Mr. Ebnet is leading the company's growth and relationships in renewable energy and renewable gas for the North American market. Prior to joining Ørsted, Mr. Ebnet worked as a Sr. Executive Vice President of a publicly traded energy development company in California where he led the Company's entrance in renewable energy development and biofuel exports into Europe and Asia.

Mr. Ebnet began his career with the Federal Government before moving into the private sector where he worked as a consultant to power utilities and government agencies. Sean served as the Executive Director of Alternative Energy Investment Group where he was responsible for the screening, research and development of privately funded renewable power projects. He later joined the British utility Drax Power Ltd. as Commercial Director and spearheaded the company's transition of the 4,000MW coal plant into what is today the largest sustainably sourced biomass power station in the world, and was responsible for building the global fuel sourcing and logistics functions for the company. He combines his global network and depth of knowledge in emerging energy supply markets coupled with a direct understanding of the economics and market demands of domestic and international energy trading.



Katrina Fritz, Executive Director of California Stationary Fuel Cell Collaborative

Katrina Fritz is the Executive Director of the California Stationary Fuel Cell Collaborative, leading education and outreach activities with the guidance of state agencies and local air districts. She also works with the National Fuel Cell Research Center on state level clean energy policy and market development. Katrina currently serves as an expert to the European Commission on Horizon 2020 programs for research and innovation. As Principal of KM Fritz LLC, Katrina has provided advisory and consulting services to global industrial firms related to business and communications strategy in distributed energy generation markets. She has held leadership positions in numerous trade associations and on advisory boards including: the U.S. Fuel Cell and Hydrogen Energy Association; the Alliance for Clean Energy New York; the Pacific Clean Energy Application Center at University of California, Berkeley; the International Energy Agency's Fuel Cell Working Group; and the Connecticut Fuel Cell and Hydrogen Coalition.

Katrina has held leadership positions at ClearEdge Power (formerly UTC Power), Plug Power and Case Western Reserve University, leading strategic planning, government relations, business development, and corporate communications, and also worked in the software industry in Santa Cruz, California and Watford, United Kingdom. She has a BA degree from the University of Michigan and an MBA from the Weatherhead School of Management at Case Western Reserve University.



Angelina Galiteva, Cal ISO Board of Governors, Board of Governors, CAISO, Founder and Board Chair, Renewables 100 Policy Institute

Ms. Galiteva works to structure and advance the implementation of cutting-edge energy policies that reflect the increasing role of renewable energy, storage, energy efficiency, electric mobility and distributed energy technologies worldwide. Ms. Galiteva is currently serving a third term on the Board of the California Independent System Operator Corporation as Vice Chair of the Board of Governors. She is the founder and Chair of the Board for the Renewables 100 Policy Institute and also serves as a Renewable Energy Expert Speaker for the US Department of State. Angelina been sent on numerous missions around the world in this expert capacity.

Ms. Galiteva's industry experience spans from serving as a Principal at NEOptions, Inc., a renewable energy and new technology product design firm to the utility sector where she worked as the Executive Director of the Los Angeles Department of Water and Power as well as the New York Power Authority. Ms. Galiteva is an attorney and holds a J.D. and LLM Degrees, specializing in Environmental and Energy Law.



Cliff Gladstein, President, Gladstein Neandross & Associates

Mr. Cliff Gladstein is the founder and president of Gladstein, Neandross & Associates (GNA). For over twenty-two years, he has been local, state, and national leader in the effort to develop cost-effective policies, programs, and products to reduce pollution from transportation, relieve the nation's dependence on petroleum, and create innovative public-private partnerships to pursue market-based solutions for environmental problems.

Mr. Gladstein is the founder of the Interstate Clean Transportation Corridor (ICTC), the nation's first and most successful public-private partnership to accelerate the commercialization of clean alternative fuel vehicles in the interstate movement of goods. He has used his knowledge and experience to develop and implement clean transportation and power generation technology deployment programs and incentive programs.

Mr. Gladstein is on the board of the Bioenergy Association of California, chairs the Education Fund of the California League of Conservation Voters, and teaches air quality policy at the UCLA Institute of Environment and Sustainability. He has been an advisor to the University of Southern California's Sustainable Cities Program and Duke University's Nicholas Institute for Environmental Policy Solutions. He is a graduate of Duke University and holds three graduate degrees from the University of Texas, Austin, and the University of California, Los Angeles.

SPEAKER BIOGRAPHIES



Erin Grizard, Senior Director, Policy, Bloom Energy

Erin Grizard is the Senior Director of Policy at Bloom Energy. Grizard has more than 16 years of experience designing and shaping environmental and energy policy from a multitude of perspectives. Grizard is a renewable energy and distributed energy generation policy expert. Her multi-faceted governmental affairs experience includes lobbying the legislature and state administrative agencies, and representation before utilities and Fortune 50 companies.

Prior to Bloom Energy, she held positions at The Dewey Square Group, California Public Utilities Commission and the Pew Charitable Trusts. Grizard received her bachelor's degree in Anthropology and Political Theory from Willamette University, and her master's degree in Public Policy from George Washington University.



Greg Huynh, Operating Agent Manager, Los Angeles Department of Water and Power

Greg Huynh manages the Los Angeles Department of Water and Power's 100% Clean Energy Innovation group that is currently engaged in several initiatives to bring clean power into the Southern California. Most notably, Greg is spearheading LADWP's efforts to conduct a comprehensive study of how the City of Los Angeles can get to 100% Renewable Energy. He and his team are also investigating how new technologies such as green hydrogen, compressed air energy storage, and carbon capture, to see how they would fit into LADWP's clean energy future.

Greg has worked on a wide range of projects in the utility industry from design & construction of electrical infrastructure, power plant operations, and planning.



Chelsea Jenkins, Executive Director of Government Affairs at ROUSH Clean Tech

Chelsea Jenkins currently serves as executive director of government affairs for ROUSH CleanTech, the alternative fuels division of ROUSH Enterprises. Prior to this recent role change, Jenkins primarily managed school bus activities for the southeast region of the United States since joining Roush in 2011. Before transitioning to Roush, Jenkins served as the Virginia Clean Cities executive director and as program coordinator for seven years. Jenkins helped grow the Virginia Clean Cities project portfolio from over \$1 million in total petroleum displacement projects primarily focused in Virginia to over \$20 million in total alternative fuel and vehicle projects covering the southeast and mid-atlantic regions. Jenkins, a recipient of the 2009 Clean Cities Coordinator of the Year award, was inducted into the Clean Cities Hall of Fame in 2011.

Jenkins' career began after a biodiesel project in Malta that later lead to helping establish Valley AIRNow, the air quality outreach program for Winchester and Frederick counties in Virginia. Jenkins has also worked in several nondestructive evaluation laboratories, including NASA's Langley Research Center. Jenkins graduated from James Madison University and received her degree in integrated science and technology with a triple concentration in energy, environment, and transportation.



Dan LeFevers, Director of State and Consumer Programs at Gas Technology Institute

Dan LeFevers is currently GTI's director of state and consumer programs and was previously the vice president of federal public affairs for Waste Management and director of Washington operations for GTI. LeFevers has over 20 years' experience with energy policy and projects including extensive collaboration with scientists and engineers to develop, deploy and demonstrate new energy technologies. LeFevers has been engaged with a variety of renewable energy and RNG projects at GTI and recently led the development of a site-specific engineering design for an RNG production facility fueled by California wood wastes. LeFevers has a Bachelor of Arts in speech communications and a Master's degree in organizational leadership.



Janice Lin, CEO of Strategen, Founder and President of the Green Hydrogen Coalition

Janice Lin is Founder and CEO of Strategen. She brings over two decades of experience in clean energy strategy, market development, and corporate strategy to the organization. Lin has advised clients globally on clean energy and energy storage strategy. She is the founder of the California Energy Storage Alliance and the Green Hydrogen Coalition. Lin has won numerous industry awards, including the 2019 Entrepreneur of the Year Cleanie® Award and the ESA 2013 Phil Symons Energy Storage Award. Lin holds an MBA from Stanford Graduate School of Business and a BA/BS from the University of Pennsylvania.



Lawrence Lingbloom, Chief Consultant, California State Assembly Committee on Natural Resources

Lawrence Lingbloom is Chief Consultant to the California Assembly Committee on Natural Resources, the Assembly's primary environmental committee with a broad jurisdiction including climate change, air quality, renewable energy and the California Environmental Quality Act.

Lawrence has served as an advisor to the California Legislature on energy and environmental issues for over 20 years, with primary responsibility for negotiating, drafting and analyzing environmental and energy legislation. Prior to his current position, Lawrence served as consultant to the Senate Committee on Energy, Utilities and Communications.

SPEAKER BIOGRAPHIES

During his tenure in the California Legislature, Lawrence has contributed to the formulation and enactment of landmark laws regarding utility regulation, renewable energy, energy efficiency, climate change and consumer protection.



Jenny Lester Moffitt, Undersecretary, California Department of Food and Agriculture

Jenny Lester Moffitt is a 5th generation California farmer and Undersecretary at the California Department of Food and Agriculture, where she was Deputy Secretary from January 2015 – February 2018. Her original appointment by Governor Jerry Brown was confirmed by Governor Gavin Newsom in early 2019. Jenny engages stakeholders on issues that affect ranchers and farmers, including climate change, biodiversity, land use, water policy, and food security.

Prior to joining CDFA, Jenny spent 10 years as Managing Director at Dixon Ridge Farms, her family's organic walnut farm and processing operation.

While working at the farm, Jenny also served on the Central Valley Regional Water Quality Control Board. She has been a board member for California Certified Organic Farmers and served on the California Organic Products Advisory Committee, the Food Safety Committee of the Walnut Marketing Board and the Farmers Advisory Council for the Organic Trade Association.

Previously, Jenny worked for American Farmland Trust. She is a graduate of Brown University with a degree in Economics, and a graduate of the California Ag Leadership program.



Emily O'Connell, Director, Energy Markets and Policy at American Gas Institute

Emily O'Connell is the Director of Energy Markets Policy at the American Gas Association, where she also serves as the staff executive of the Sustainable Growth Committee, a member committee focused on advancing opportunities to expand the gas utility model and the direct and distributed use of natural gas. Her work with this committee has heavily focused on the role that renewable gas can play in lowering the carbon intensity of the natural gas pipeline and maximizing the value proposition of gas utilities in a lower carbon future.



Larry Osgood, Consultant, Advisor, Project Development & Optimization of Propane Education & Research Council

Larry Osgood is President of Consulting Solutions, LLC in Monument, Colorado. Consulting Solutions is a business optimization and technology consulting firm focused on the propane industry. Consulting Solutions provides technical and project optimization services to the US Propane Education & Research Council (PERC), focusing on the Research & Development Program including distributed power generation, fuel composition issues and autogas/engine development.

Larry is an expert in alternative fuels having served on several governmental panels including appointment by state Governors to the Colorado Blue Ribbon Task Force on Alternative Fuels, and the Board of the Texas Alternative Fuel Research and Education Division. Larry also served as industry staff expert to President Bush's National Alternative Fuels Committee and President Clinton's Federal Alternative Fuel Clean Fleet Task Force.

Larry holds a Bachelor's degree in Business Administration, Finance & Economics from California State University, and has completed several advanced business executive and technical management programs.



Lorraine Paskett, Board Member and Chair, Renewable Hydrogen Initiative, California Hydrogen Business Council

Lorraine Paskett has more than 25 years in the energy, water and environmental sectors. In the past 15 years, Ms. Paskett served as a director for a California investor-owned utility leading a team through the California energy crisis, sponsoring a suite of initiatives including energy market reform, climate change policy, renewable energy market development, and corporate tax reforms. Ms. Paskett served more recently as a senior executive for the largest U.S municipal utility – Los Angeles Department of Water and Power -- leading a comprehensive approach for sustainable utility practices.

The focus of her service included revamping utility programs to support accelerated adoption of alternative vehicle fuel sources in Southern California, overseeing electric system transmission permitting, new wind and solar electric generation project permitting, all energy efficiency and water conservation programs, and managing greenhouse gas emissions programs across the utility operations.

She also supported long-term permanent transition from coal energy to renewable energy. Currently, Ms. Paskett owns and manages Cambridge LCF Group which works with conventional and emerging energy companies which promote alternative energy and expand related markets and supports comprehensive policies to address climate change. Ms. Paskett has been honored by the California League of Conservation Voters (CLCV), the California State Legislature and the City of Los Angeles for her work to improve the environment and pursue projects that reduce the impacts of climate change and air pollution.

SPEAKER BIOGRAPHIES



Jeffrey Reed, Advanced Power and Energy Program Chief Scientist, Renewable Fuels and Energy Storage, UCI

Jeffrey Reed is the Chief Scientist – Renewable Fuels and Energy Storage for the Advanced Power and Energy Program at the University of California, Irvine. In this role, Dr. Reed is focused on advancing the deployment of renewable gaseous fuels and related storage technologies that support the integration of high quantities of renewables on the electric grid, reduce toxic emissions and reduce greenhouse emissions in the energy and transportation sectors.

Jeffrey is board president for the California Hydrogen Business Council and has served on the boards of numerous clean technology organizations. Prior to joining UCI, Jeff was the Director of Business Strategy and Advanced Technology for Southern California Gas Company. In earlier roles, Dr. Reed was a senior strategy consultant, Vice President of Marketing and Business Development with ABB Power Generation and held various positions in product design, development and research in the defense industry. He holds a doctorate in engineering from UC Berkeley and a master's degree in management from Stanford University.



Phillip Sheehy, Technical Director at ICF

Philip Sheehy is a consultant at ICF where he leads work related to decarbonization of the transportation sector, focused on renewable natural gas, liquid biofuels, and electrification. He works with a mix of commercial and public clients to develop strategies that will reduce greenhouse gas emissions cost-effectively.

Philip earned his PhD in Physical Chemistry from MIT and his Bachelor of Arts in Physics and Chemistry from Kalamazoo College.



Senator Nancy Skinner, Senator Senate District 9

A social justice advocate and sustainability trailblazer, State Senator Nancy Skinner coauthored last year's SB 100 to get California to 100% renewable electricity by 2045. In the State Assembly and Senate she's also authored bills to accelerate the uptake of electric & zero-emission vehicles, expand solar net metering, mandate energy storage so renewable electricity can be deployed when needed, and increase the energy efficiency of buildings built pre-Title 24.

In 1990, Skinner co-founded ICLEI-Local Governments for Sustainability and directed ICLEI's Cities for Climate Protection program, the first effort to engage local governments in climate awareness and carbon reduction efforts.



Hector de La Torre, Gubernatorial Appointee, California Air Resources Board

Mr. Hector De La Torre serves on the California Air Resources Board (CARB) as a gubernatorial appointee, where he focuses on goods movement, mitigation in impacted communities, and bringing the benefits of new technologies to these communities.

Mr. De La Torre is the Executive Director of the Transamerica Center for Health Studies, a nonprofit focused on empowering consumers and employers to achieve the best value and protection from their health coverage, as well as the best outcomes in their personal health and wellness.

De La Torre is also a member of the Board of Trustees at Occidental College (his alma mater) in Los Angeles and the Board of L.A. Care, the largest public health plan in the United States. De La Torre served as a State Assemblymember for California's 50th District from 2004-2010. Prior to that, he was Mayor and Councilmember in his hometown of South Gate.



Sharon Tomkins, Vice President, Strategy and Engagement, and Chief Environmental Officer, Southern California Gas Company

Sharon Tomkins is vice president of strategy and engagement, and Chief Environmental Officer for Southern California Gas Company (SoCalGas), a Sempra Energy regulated California utility. She is responsible for environmental services and developing and delivering the information that meets customers' energy needs and supports state environmental and social policy objectives. Tomkins leads the company's energy policy and strategy, which includes issues management for balanced energy, energy choice, affordability and reliability. Previously, she was SoCalGas' general counsel.

Tomkins is chair of the board of directors of the California Minority Counsel Program. She also serves on the board of directors of United Way of Greater Los Angeles, and Constitutional Rights Foundation, as well as the advisory board of the U.C. Davis Energy Efficiency Institute. She is a member of the University of California, Irvine Chief Executive Roundtable and the Los Angeles County Fair Association.

Tomkins graduated Order of the Coif from the USC Gould School of Law and received her undergraduate degree in English, with High Distinction, from Pennsylvania State University.

SPONSORS



American Gas Association

The American Gas Association, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 75 million residential, commercial and industrial natural gas customers in the U.S., of which 95 percent — more than 71 million customers — receive their gas from AGA members. Today, natural gas meets more than 30 percent of the United States' energy needs.

www.aga.org



Bay Area Air Quality Management District

Since 1955, the Bay Area Air Quality Management District has been the public agency entrusted with regulating stationary sources of air pollution in the nine counties that surround San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma counties. The Bay Area air basin is home to seven million people. As the region continues to grow, there is an even greater need to reduce pollution in the region. The Air District is working to encourage: cleaner transportation, better building practices and emissions reductions from industrial sources. With a mission to protect and improve public health, air quality, and the global climate, the Air District encourages everyone in the Bay Area to join in the region's efforts to improve air quality.

www.baaqmd.gov



Bloom Energy

Bloom Energy's mission is to make clean, reliable, and affordable energy for everyone in the world. The company's product, the Bloom Energy Server, delivers highly reliable and resilient, 'Always-On' electric power that is clean and sustainable. Bloom's customers include 25 of the Fortune 100 companies and leaders in cloud services and data centers, healthcare, retail, financial services, utilities, and many other industries.

www.bloomenergy.com



BP

BP's global energy marketing and trading business connects BP to the world's traded markets as the customer-facing business of a global, integrated oil and gas company that spans the energy value chain. We offer customers a unique combination of expertise in physical supply and trading, innovative financial structures, world-class analytics, diverse product offerings and geographic depth, with the ability to utilize these combinations to provide creative solutions that deliver long-term value. BP is one of the leading marketing and trading companies in North America with an activity set spanning natural gas, natural gas liquids, biogas, chemicals, power and structured products. BP is one of the largest suppliers of renewable natural gas (RNG) to the U.S. transportation sector, is actively involved in developing offset projects in a variety of sectors, and participates in most voluntary and regulatory carbon and renewable fuels markets including EPA RFS, California LCFS and California Cap and Trade.

www.bp.com



California Air Resources Board

The California Air Resources Board (CARB) is charged with protecting the public from the harmful effects of air pollution and developing programs and actions to fight climate change. From requirements for clean cars and fuels to adopting innovative solutions to reduce greenhouse gas emissions, California has pioneered a range of effective approaches that have set the standard for effective air and climate programs for the nation, and the world.

ww2.arb.ca.gov



Clean Energy Renewables

Clean Energy Renewables leads the market for RNG vehicle fuel. We tailor RNG fueling solutions for our fleet customers and have partnered with RNG developers from the beginning of our fast-growing industry, driving the policy that supports low carbon and renewable fuels. No other RNG provider has the robust station network of Clean Energy, allowing fleets to deploy and utilize RNG faster and more feasibly than anywhere else.

www.cleanenergyfuels.com



California Natural Gas Vehicle Partnership

The California Natural Gas Vehicle Partnership (CNGVP) is an alliance of air quality, transportation and energy agencies, vehicle and engine manufacturers, fuel providers, transit and refuse hauler associations, and other stakeholders interested in increasing and strengthening the deployment of low-emission natural gas vehicles throughout California. Through the CNGVP's efforts in California, the organization has helped to deliver the promise of clean transportation by promoting the research and development, demonstration and deployment, accessibility and commercializing, and legislative support for natural gas vehicles.

www.cngvp.org

SPONSORS



CR&R Incorporated

CR&R Incorporated is a comprehensive environmental services company based in Southern California. It provides waste collection, recycling, transfer and disposal, composting anaerobic digestion, and renewable energy to the communities and businesses it serves in Orange, Los Angeles, San Bernardino, Imperial, and Riverside counties. CR&R hold more than 50 municipal service contracts. As a technological leader in the waste/recycling sector, CR&R operates one of the world's most advanced anaerobic digestion facilities in Perris, California. This facility processes source-separated municipal organic waste into renewable natural gas (RNG) and soil products. The RNG generated from the anaerobic digestion process powers the collection fleets of 16 local governments under contract with CR&R.

www.crrwasteservices.com



Element Markets

Element Markets, LLC is the leading independent marketer of biomethane. We provide full service biomethane management and marketing services, including the generation and monetization of environmental credits. Element Markets' expertise allows clients to take advantage of premium markets while minimizing risk.

www.elementmarkets.com



Gas Technology Institute

GTI is a leading research, development and training organization addressing global energy and environmental challenges to enable a secure, abundant, and clean energy future. For over 75 years, GTI has been providing economic value to the natural gas industry and energy markets by developing technology-based solutions for industry, government, and consumers. Our research initiatives solve important energy challenges across the industry's value chain—supply, delivery, and end use. From concept to commercialization, we offer an integrated systems perspective to expand the supply of natural gas and renewable energy, ensure a safe and reliable natural gas infrastructure, promote the efficient use of energy resources, and address carbon management concerns. To date, GTI programs have resulted in nearly 500 products, 750 licenses and more than 1,300 associated patents.

www.gti.energy



Ingevity

Ingevity provides specialty chemicals, high-performance carbon materials and engineered polymers that purify, protect, and enhance the world. Our products are used in a variety of demanding applications, including asphalt paving, oil exploration and production, agrochemicals, adhesives, lubricants, publication inks, coatings, elastomers, bioplastics and automotive components that reduce gasoline vapor emissions. We have leveraged over 100 years of expertise in activated carbon to enable adsorbed natural gas (ANG) technology. ANG is a low-pressure option for bi-fuel light-duty vehicles, like SUVs, half-ton pickup trucks and service vans, and can also be beneficial for natural gas handling.

www.ingevity.com



Propane Education & Research Council (PERC)

The Propane Education & Research Council (PERC) is a check-off program established, operated, & funded by the propane industry. PERC has long invested in new vehicle & technology development with OEMs, nationwide, to expand the adoption of propane autogas among both public & private fleets. As a leading alternative fuel, PERC recognizes the important role propane autogas plays in the clean transportation movement. Abundant, affordable, & American-made, propane autogas' low total cost-of-ownership is a key advantage that helps fleets meet their economic & environmental goals.

www.propane.com/about/about-perc



Pacific Gas & Electric (PG&E)

Pacific Gas & Electric has a long history, over 100 years, of working together with farmers and ranchers building a better California. PG&E is proud to be a partner and participate in this year's California Dairy Sustainability Summit. PG&E recognizes the critical importance of agriculture both in feeding the world and sustaining our economy. All of us at PG&E are committed to serving the needs of agriculture with safe, reliable, affordable, and clean energy.

www.pge.com



RealEnergy

Through public/private partnerships RealEnergy has designed and built more onsite gas to energy facilities than any other independent power producer in North America. To satisfy the recent convergent local demands for renewable energy, landfill diversion, low carbon transportation fuel and organic fertilizer, RealEnergy is developing several biogas networks in the Western United States. RealEnergy is laser focused on the design and construction of cogeneration and organic waste-to-biogas energy facilities.

www.realenergy.com

SPONSORS



South Coast Air Quality Management District (SCAQMD)

The South Coast Air Quality Management District (SCAQMD) is the regional air pollution control agency for the combined urban areas of Los Angeles, Riverside, and San Bernardino counties and all of Orange county. The SCAQMD works to accelerate deployment of low-emitting vehicles, technologies, and products so that more than 16 million Southern California residents can breathe cleaner air and live healthier lives. SCAQMD's technology advancement program is internationally recognized for its comprehensive portfolio of public-private collaborations to demonstrate and deploy cleaner technologies including battery-electric, plug-in hybrid, fuel cell and ultra-low NOx engines running on renewable natural gas.

www.aqmd.gov



Shell New Energies

Shell New Energies is a division within Royal Dutch Shell that invests up to \$2 billion annually to lead the energy transition to a lower carbon future. Within New Energies, Shell has formed its Renewable Natural Gas team, which strategically owns and invests in projects along the natural gas value chain from supply through dispensing.

www.shell.com/energy-and-innovation/new-energies.html



Sacramento Municipal Utility District

As the nation's sixth-largest community-owned, not-for-profit electric service provider, SMUD has been providing low-cost, reliable electricity for over 70 years to Sacramento County (and small adjoining portions of Placer and Yolo Counties). SMUD is a recognized industry leader and award winner for its innovative energy efficiency programs, renewable power technologies, and for its sustainable solutions for a healthier environment.

www.smud.org



Southern California Gas Company

As the nation's largest natural gas distribution utility, we deliver clean, safe and reliable energy to 21.8 million consumers through 5.9 million meters in more than 500 communities. Our service territory encompasses approximately 24,000 square miles in diverse terrain throughout Central and Southern California, from Visalia to the Mexican border. For more than 150 years, SoCalGas has served Central and Southern California as a responsible and engaged environmental leader, employer and neighbor. With safe, clean, affordable, reliable and abundant domestic sources of natural gas, SoCalGas' innovation is fueling new possibilities in California. Southern California is our home, too. We strive to improve the quality of life in our communities by maintaining a diverse workforce, working with suppliers that represent and reflect the communities we serve and giving back through our charitable contributions and employee volunteer activities. Like other investor-owned utilities in the state, SoCalGas' operations are regulated by the California Public Utilities Commission and other state and federal agencies.

www.socalgas.com

ABOUT THE ORGANIZER



Renewable Gas 360 is produced by *Gladstein, Neandross & Associates (GNA)*, the leading North American consulting firm specializing in market development for low-emission and alternative fuel vehicle technologies, infrastructure and fuels for both on and off-road applications. GNA provides strategic market analysis and planning, technical assistance, and public affairs and policy support to clients in the private, public and non-profit sectors. For more than 26 years, GNA has pioneered the nation's largest and most innovative alternative fuel vehicle projects, including the development of several successful clean fuel corridor projects.

In addition to its technical consulting practice, GNA has organized many of the nation's leading clean and advanced technology events that have brought together tens of thousands of attendees. Prior events include: the *Advanced Clean Transportation (ACT) Expo*; the Faster Freight – Cleaner Air conference series; the Low Carbon Fuels conference series; the High Horsepower (HHP) Summit; the Clean Vehicle Technologies Expo; the Low Carbon Fuels Expo; the National Biomethane Summit; the NGV Fleet Summit; the *California Dairy Sustainability Summit* and more.

www.gladstein.org