



## WHITE PAPER

for the 2023 GGEDC Annual Roundtable  
January 27, 2023

### *“The Prewitt Industrial Park and the Western Inter-State Hydrogen Hub”*

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#### OVERVIEW

In its role as the Gallup area’s facilitator of economic planning and development, the Greater Gallup Economic Development Corporation (GGEDC) is continuing its Call to Action to position the Gallup-McKinley County region as a key location for investment and production in the rapidly emerging “Hydrogen Economy.” To accelerate this Action agenda, this year’s Economic Roundtable will focus on up-to-date local and state efforts to secure federal designation and funding for the *Western Inter-State Hydrogen Hub (WISHH)* – with the intention of promoting the Prewitt Industrial Park as a premier Hydrogen Energy development site. The Roundtable is set to be held in Santa Fé on the 27<sup>th</sup> of January, 2023.

The Greater Gallup Hydrogen initiative is an outgrowth of several years of research, planning and development related to the anticipated – and now actual – market-driven de-commissioning of the Escalante Generating Station, with a proactive eye to retaining and re-purposing this major industrial asset to transition from coal-fired power generation to renewable/sustainable alternatives. By staying abreast with regional, national and global trends in the energy industry, and in consultation with private and public economic leaders at the cutting edge of these trends, the GGEDC became aware of the emergence of Hydrogen technology as a viable alternative for power generation. The planning and development work has benefited heavily from the participation, input and support of a number of critical public and private sector partners.

While it is clear that the State of New Mexico is formally “all in” on the hydrogen hub initiative, the commitment to “blue hydrogen” is not without controversy. The initiative has faced resistance from some quarters, especially around the technology’s use of a fossil fuel (natural gas), despite (a) the abundance of this natural resource and related infrastructure in northwestern New Mexico, (b) the global demand for energy production

that exceeds current capacity from non-carbon sources, (c) the fact that most nations of the world have adopted hydrogen technology as a key step toward a zero-carbon future; (d) the plan by both public and private sectors players to sequester carbon dioxide by-products, (e) the intent to develop and deploy non-carbon methods as feasible in the future, and (f) the commitment to achieve zero carbon emissions by Year 15 of the initiative. The position of the WISHH partners, in which GGEDC is a key player, is that both “blue” and “green” hydrogen technologies are in the long-term mix, but that there are rational and compelling reasons to support blue technology at this stage on the journey to a carbon-free economy.

Inspired by the “EH2” investment by Tallgrass Energy in the Escalante Generating Station asset for converting the facility into Hydrogen generation, the GGEDC and its partners could readily see the competitive advantages:

- our strong east-west transportation asset anchored by Interstate-40 and the BNSF railroad;
- the well-managed Escalante power plant infrastructure bequeathed by EGS owners Tri-State Generation & Transmission Association;
- the presence of abundant natural resources (natural gas) needed for hydrogen production;
- key hydrogen energy investors ready to invest and develop in both McKinley and San Juan Counties;
- strong support from and collaboration with public and private partners at the regional, state and national levels;
- a clear need for economic recovery, including replacing good jobs lost during the contraction of local mining and power generation activity; and
- strong local leadership.

It was a natural progression, then, for GGEDC to begin vetting the Hydrogen opportunity. The 2022 Economic Roundtable held in Gallup in June 2022 brought public and private stakeholders together to learn and collaborate around the Hydrogen opportunity. The White Paper made the case for hydrogen development as a “transformational” economic opportunity for Gallup, as well as for McKinley, Cibola and San Juan Counties. It also introduced the four-state collaboration by New Mexico, Arizona, Utah and Colorado in a “Western Inter-State Hydrogen Hub (WISHH),” being developed to attract federal designation of and investment in a “regional clean hydrogen hub” by the US Department of Energy. Finally, the White Paper put forward the former Escalante Generating Station in Prewitt as “the most competitive physical asset available in the State from which to build a new hydrogen economy” as well as the site with the “highest potential for hydrogen hub job creation.”



On the other hand, the Strategic Target Industry Report on the Prewitt Industrial Park, provided by Navigator Consulting in October 2022, identified substantial work needed to “finish the due diligence” regarding preparing the Prewitt site for investment. The consultants were very encouraging regarding the “groundswell of regional and statewide support for (the) initiative to develop the Prewitt property as an important asset within the framework of the State of New Mexico’s Hydrogen Hub initiative.” At the same time, the report lifted out serious on-the-ground research work (detailed further below) needed to address critical site factors not yet addressed in the Master Plan and Preliminary Design provided in July 2020 by Wilson & Company.

The Navigator report acknowledged that the local community had made progress in identifying the needed information, and it characterized the August 2022 “strategic meeting” held at EGS as a “turning point in clarifying the many issues which Greater Gallup faces in the development of the Prewitt property into an industrial park.” Given the intense competition arising nationwide in hydrogen energy development, the Navigator consultants nevertheless urged GGEDC and its partners to redouble their efforts to complete this essential preparedness mission.

In service to this mission, the GGEDC is convening the 2023 Economic Roundtable, “The Prewitt Industrial Park and the Western Inter-State Hydrogen Hub.”

## RECENT DEVELOPMENTS & CURRENT STATUS

### (1) Strategic Meeting, August 15, 2022

Building on the momentum generated by the June 3, 2022 Roundtable, “*Super-Charging the Region: Building a Transformational Hydrogen Economy*,” on August 15<sup>th</sup> the GGEDC convened a “strategic meeting” at the Escalante Generating Station involving key stakeholders in the state and regional hydrogen initiative. The meeting served to reinforce the collaborative energy of the initiative and sharpened the focus on the challenging tasks ahead concerning mitigating shortfalls and developing critical infrastructure at the Prewitt Industrial Park as dictated by the development criteria and requirements of investors.

The centerpiece of the strategic meeting was a preliminary report by senior representatives of Navigator Consulting regarding their Strategic Target Industry study of the Prewitt Industrial Park properties (later submitted to GGEDC as a final report on October 10, 2022). It was here that the stakeholders got a clear understanding of the information gaps and on-the-ground research work yet to be done to determine readiness of the site for investment and development. Foremost among the shortfalls was the need for specific knowledge of the long-term availability of water for industrial development, as well as the water and

wastewater infrastructure needed for the site. It was here, also, that stakeholders made specific commitments to ensure that planning and readiness tasks were undertaken as efficiently as possible.

**(2) Strategic Target Industry Report, October 10, 2022**

Following the August 15<sup>th</sup> meeting, Navigator Consulting submitted its full report on October 10, 2022. To expand on the above summary of their findings, the report included a robust set of recommended actions, including:

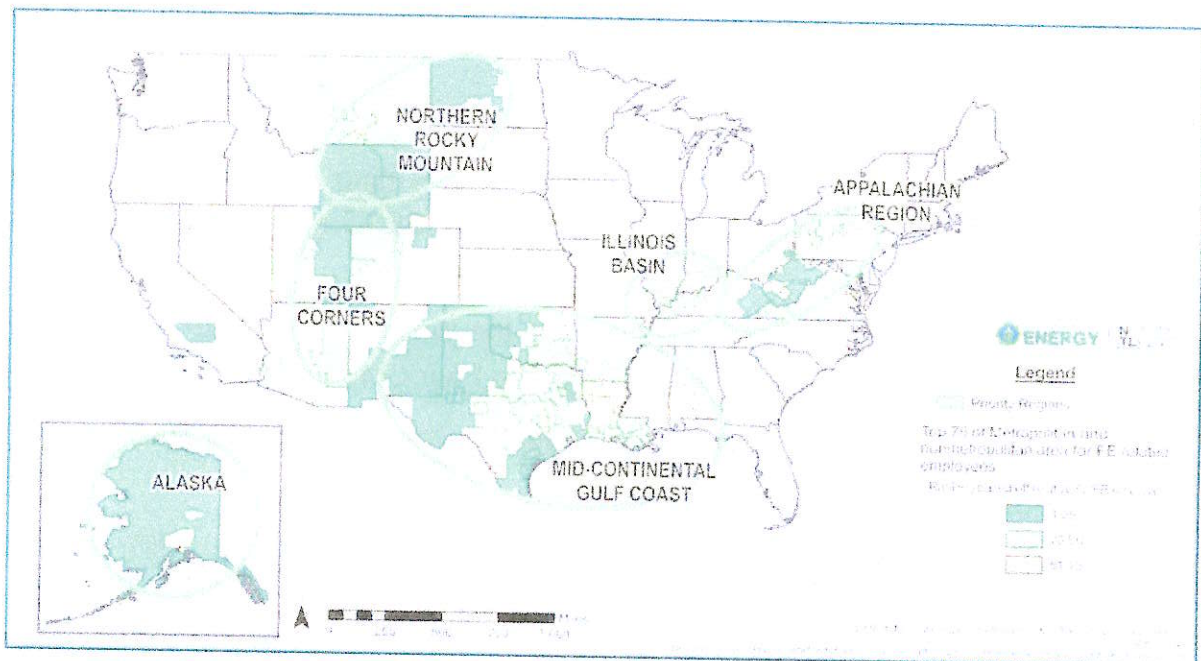
- **Infrastructure assessment**
  - Clarification of water rights, availability and accessibility;
  - Clarification of wastewater solutions on the site;
  - Conducting a geotechnical study of the site
  - Development of utility maps – preferably layered and compilable onto a master map;
  - Clarification of road infrastructure as related to the site, along with a timeline including engineering and construction, plus cost and funding.
  - Clarification with BNSF on plans for a rail spur to the industrial site.
- **Due Diligence**
  - Updating and clear titling of all documentation in the project dossier to avoid confusion and duplication;
  - Development of a quality Site Map for the Prewitt industrial site
  - Development of a quality Utility Map, combining all utilities on a single map;
  - Provision of explanatory memos for any remaining infrastructure issues.
- **Project Promotion**
  - Updating of GGEDC marketing materials, making sure to highlight the connection and inclusion the region's indigenous populations;
  - Development of drone footage of the site, with a link on the GGEDC website;
  - Development of a digital industrial park portfolio (and/or hard copy prospectus), to include a comprehensive range of information, including the "due diligence" topics, e.g.:
    - Overview
    - Geotechnical
    - Utilities
    - Labor Market
    - Transportation
    - Business Taxes
    - Incentives & Support
    - Quality of Life



(3) WISHH Concept Paper, November 4, 2022

Having formed an interstate alliance in February 2022, on November 4, 2022 Western Interstate Hydrogen Hub, LLC (WIH2), a subsidiary of Atkins, Inc., submitted a concept paper on behalf of the States of New Mexico, Arizona, Utah and Colorado to the US Department of Energy outlining their joint proposal for a new “*Western Inter-State Hydrogen Hub*,” or WISHH. In conjunction with this proposal, the Governors enlisted support from the Rocky Mountain Alliance for Next Generation Energy (RANGE), a regional organization composed of 12 research universities, 3 national laboratories and numerous community colleges and training institutions.

Under their “regional clean hydrogen hubs” initiative, the DOE plans to award up to \$1.25 billion to each of six to ten regional projects around the nation. The “Four Corners” is already identified as a priority region in a 2021 DOE report to the President on “Empowering Workers through Revitalizing Energy Communities” (see map below). The importance of the Four Corners states, and of the Escalante/Prewitt industrial site in particular, in the national hydrogen mix was further underscored in remarks made by senior White House staff at the recently convened national Hydrogen Economy roundtable.



SOURCE: DEPARTMENT OF ENERGY (2021); INITIAL REPORT TO THE PRESIDENT ON EMPOWERING WORKERS THROUGH REVITALIZING ENERGY COMMUNITIES, P. 6  
([https://netl.doe.gov/sites/default/files/202104/Initial%20Report%20on%20Energy%20Communities\\_Apr2021.pdf](https://netl.doe.gov/sites/default/files/202104/Initial%20Report%20on%20Energy%20Communities_Apr2021.pdf))

The WISHH concept “coordinates, integrates, supplements and accelerates hydrogen production, transport, storage and use in a sustainable and socially just manner and promotes workforce development to create high-quality jobs for our diverse populations.” The proposal:

- includes massive hydrogen production (1,000 MT/day by Year 7 and 1,900 MT/day by Year 12) to strategically reduce carbon emissions and other pollutants in the 4 Corners region;
- triggers coordinated growth of markets and end use;
- identifies 8 major hydrogen projects that link the states’ efforts, produce hydrogen for multiple end-users and leverage current pipeline and storage infrastructure;
- includes on the project list the EH2 project planned by Tallgrass Energy for the Escalante/Prewitt Industrial Park, the hydrogen fueling station project planned by Libertad in San Juan County, and the sustainable farming initiative planned by Navajo Agricultural Products Industry (NAPI);
- provides for private sector investment more than equal to the \$1 billion in requested federal investment;
- plans for the gradual conversion of existing power plants from coal-fired generation to a hydrogen-methane mix, the introduction of both electrolyzing and gas reforming technologies, and the eventual achievement of zero carbon emissions by Year 15.

## THE STRATEGY

Based on the research, consultations and emerging development plans and investments around the Hydrogen Hub initiative, the GGEDC has promoted a strategic path forward that:

- aligns with the regional hub concept – the Western Inter-State Hydrogen Hub (WISHH) – adopted and proposed by the Four Corners states Governors;
- coordinates closely with the New Mexico Governor’s lead team on the New Mexico component of the WISHH;
- promotes legislative actions that support investment in New Mexico’s commitment to the WISHH;
- establishes the Prewitt Industrial Park as a catalytic project site for the WISHH; and
- ensures the completion of all steps needed to meet due diligence standards and requirements for the Prewitt industrial site.



## TACTICAL PRIORITIES

The general hydrogen strategy having been laid out and consulted on over the past year, the time is at hand for focused action on the critical steps needing to be taken to:

- support and promote WISHH and its New Mexico component;
- strengthen the “Prewitt case” as a key WISHH and New Mexico site for hydrogen energy development by upgrading site readiness;
- expand communication and coordination with the hydrogen development projects proposed for San Juan County;
- analyze, prioritize and formalize legislative strategies in coordination with partners in the initiative; and
- secure the public and private resources needed for successful development.

Coordinated efforts are already underway to support each of these tactical paths, including:

- addressing the specific information needs laid out in the Navigator Consulting *Strategic Target Industry Report*;
- completion of the next phase of the Prewitt Industrial Park master plan;
- continued coordination with New Mexico’s four designated cabinet secretaries with respect to the WISHH;
- increased communication and collaboration among the northwest New Mexico region’s economic development organizations;
- initial analysis of legislative initiatives needing to be undertaken in the 2023 New Mexico Legislative Session
  - As of mid-December 2022, a number of legislative strategies were under consideration, including investments and developments that support long-term commercial transportation capacities that accommodate emerging automotive technologies such as autonomous and hydrogen-powered vehicles.
- coordination with private and public partners at the national level, including an invitation for senior White House presence at the 2023 Roundtable; and
- planning and preparations for the 2023 Economic Roundtable to take place in Santa Fé on January 27<sup>th</sup>, 2023.

## CONCLUSION

The 2023 Economic Roundtable is designed to bring key stakeholders up to date on the Hydrogen Hub initiative, to inform them on action priorities and timelines, and to engage their continued support and assistance toward achieving “mission success” for the Greater Gallup region, the State of New Mexico and the Four Corners States.

## Appendix 3

# Keynote Speaker Bios





## Welcome to Greater Gallup EDC's 11<sup>th</sup> Economic Development Roundtable: *Positioning the Escalante Generating Station & Northwest New Mexico for the Western Inter-State Hydrogen Hub*

Greater Gallup Economic Development Corporation (GGEDC) is a 501(c)(3) nonprofit organization established in 2012, with a mission to drive economic growth through building on local assets and strategic partnering to target attraction and recruitment of business and industrial employers that provide economic-base jobs in the Gallup-McKinley County area. As a professional economic development organization serving the City of Gallup and McKinley County, GGEDC adheres to the Code of Ethics of the International Economic Development Council, is managed and staffed by Certified Economic Developers (CEcD), and governed by an 8-member board of directors with a combined business experience exceeding 250-years.

GGEDC's annual Economic Roundtables are a highly effective means of addressing specific economic development challenges, launching new initiatives, and educating the public. Since 2014, GGEDC has hosted ten roundtables. The roundtables have increased the capacity of City of Gallup and McKinley County officials and residents to promote local economic growth and to improve the overall quality of life. Utilizing facilitated discussions, the roundtables allow the community to address economic development issues in novel, collaborative ways that produce innovative results and drive positive outcomes.

### Thank You!

GGEDC extends its heartfelt thanks to Tallgrass Energy Partners, LLC for helping to underwrite the costs of the 2023 Economic Development Roundtable.

Tallgrass is a leading energy infrastructure company focused on safely, reliably and sustainably delivering the energy and services that power the nation and enable our quality of life. Its infrastructure spans a large portion of the United States, connecting energy supply sources with the homes and businesses that depend on them every day. Tallgrass leverages the expertise of its people and its successful track record operating large-scale infrastructure to provide leading energy solutions for a cleaner energy future.

Tallgrass is the majority owner of Escalante H2 Power, LLC (eH2). eH2 is currently in negotiations with Tri-State Generation and Transmission Authority to purchase the Escalante Generating Station with plans to convert it from coal-fired to hydrogen-fired generation. eH2's Escalante Generating Station project is a critical component of New Mexico's contribution to the Western Inter-State Hydrogen Hub Initiative.

GGEDC also wishes to thank the following for providing financial and other substantial support:

- The GGEDC Board of Directors
- City of Gallup
- McKinley County
- New Mexico Economic Development Department
- And YOU, the Economic Development Roundtable participants, for your involvement and steadfast commitment to creating positive and lasting change in Northwest New Mexico.



## Tommy Haws

*Tommy Haws is a founding member and current Board President of the Greater Economic Development Corporation. He is Senior Vice President of Pinnacle Bank, in Gallup, NM with a commercial portfolio and customer relationships that span his two decades with the bank.*



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Tommy is involved in a range of civic responsibilities in the community and is an active member of his Church. New Mexico IDEA, the state economic development professional organization, recently recognized Tommy as "Volunteer of the Year" in New Mexico.

A native of New Mexico, Tommy was born in Farmington, NM and raised in Gallup. After graduating from Brigham Young University with a B.A. in Political Science and Communications Tommy brought his family back to the Land of Enchantment to raise his four children with his wife Eileen.

## Ryan Peay

*Ryan Peay is U.S. DOE's Deputy Assistant Secretary for Resource Sustainability in the Office of Fossil Energy and Carbon Management. He sets the strategic direction for the Office of Resource Sustainability and administers the programs, including fossil energy research and development, engagement, analysis, budget, and natural gas regulation.*

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Previously, Ryan was the Director of Planning and Administration for the Office of Oil and Natural Gas and was responsible for strategic planning as well as coordinating and integrating daily activities across the Office. Prior to joining DOE, Ryan was a manager at a major consulting firm, focused on strategic planning, financial programming, and budgeting activities. From 2002 to 2007, Ryan served on active duty in the U.S. Army as a Field Artillery Officer in the 101st Airborne Division.



Peay holds an MBA from the Darden School of Business at the University of Virginia and is a graduate of the Virginia Military Institute with a B.A. in International Studies and Political Science.

## Henry C. McKoy, Jr.

*Dr. Henry C. McKoy, Jr. is the inaugural Director of the Office of State and Community Energy Programs (SCEP) at the United States Department of Energy. The newly created SCEP, within the Office of the Under Secretary for Infrastructure, manages \$16 billion in federal funding and supports the transition to an equitable clean energy economy.*



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Dr. McKoy is a seasoned professional in business, community and economic development, policy, government, finance, energy, philanthropy and the academic worlds. Prior to the Department of Energy, he served on the faculty at North Carolina Central University School of Business where he led the entrepreneurship program, with additional academic appointments at Duke University, the University of North Carolina at Chapel Hill, and Harvard University. He is a former senior

banking executive, successful entrepreneur, and former Assistant Secretary of the North Carolina Department of Commerce.



Dr. McKoy has been a Fellow of the Kenan Institute of Private Enterprise at UNC-Chapel Hill, an affiliated faculty of the Samuel DuBois Cook Center on Social Equity, as well as an Aspen Institute Scholar. He holds degrees from UNC-Chapel Hill's Kenan-Flagler Business School (B.S.), Duke's Nicholas School of the Environment (M.S.), and UNC-Chapel Hill's Department of City and Regional Planning (PhD).

## James C. Kenney

*Cabinet Secretary for the New Mexico Economic Development Department*

As New Mexico's senior environmental official, James Kenney leads and oversees a strong and proactive department tasked with implementing environmental policies and directives, while planning for a sustainable New Mexico future. Prior to serving as Cabinet Secretary for the New Mexico Economic Development Department, James C. Kenney spent more than 21 years across two stints at the U.S. Environmental Protection Agency, most recently as senior policy advisor for oil and gas. In that role, he worked with senior agency leadership and designed strategies to support environmentally responsible development of oil and natural gas resources while working with states, tribes, federal agencies NGOs and industries on regulatory and policy matters.



Kenney has served as a senior environmental engineer at the EPA, leading both civil and criminal investigations related to the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, and other EPA statutes and regulations, as well as developing strategic compliance and enforcement approaches on oil and natural gas exploration. He has also served as an EPA ozone program manager in Denver, a senior environmental engineer at Denver-based environmental engineering firm McCoy and Associates, and as a consultant at the U.S. Department of Justice.

Kenney holds both bachelor's and master's degrees in environmental engineering from Temple University.

## Alicia Keyes

*Cabinet Secretary for the New Mexico Economic Development Department*



As Cabinet Secretary for the New Mexico Economic Development Department, Alicia Keyes oversees a departmental mission to *improve the lives of New Mexico families by increasing economic opportunities and providing a place for businesses to thrive.*

Alicia previously served as the film liaison for the city of Albuquerque, a role in which she initiated and oversaw the \$1 billion agreement with Netflix to establish a landmark studio. She established a workforce training program with both the University of New Mexico and Central New Mexico Community College and was responsible for all film permitting and recruiting. Since 2005, she has been the chief executive officer and a producer at AJK Films, where she has developed, written and optioned original content for film and television while maintaining relationships with distributors, studios and

agents. Beginning in 1998, Alicia was the executive director of worldwide acquisitions for the Walt Disney Company, where she was responsible for the acquisition of theatrical motion pictures for distribution, including select and international rights for films under the Buena Vista International banner.

Keyes has a bachelor of economics, politics and philosophy degree from Claremont McKenna College in Claremont, California.

## Sarah Cottrell Propst

*Cabinet Secretary for the New Mexico Energy, Minerals and Natural Resources Department*

Sarah Cottrell Propst was appointed by the Governor in 2019 to serve as Cabinet Secretary of the Energy, Minerals and Natural Resources Department (EMNRD) where she leads and oversees the department's Energy Conservation & Management, Forestry, Mining & Minerals, Oil Conservation and State Parks Divisions. Previously, she served as the Deputy Cabinet Secretary of the New Mexico Environment Department and as Energy and Environmental Policy Advisor to New Mexico Governor Bill Richardson.

From 2012 to 2018, Cottrell Propst served as the Executive Director of the Interwest Energy Alliance, a non-profit trade association that represents the nation's leading



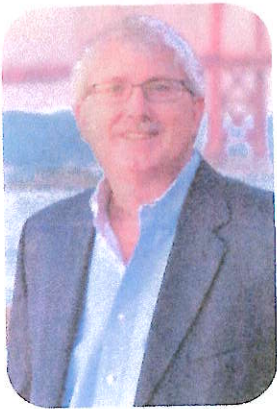


companies in the renewable energy industry, bringing them together with non-governmental organizations in the West (Arizona, Colorado, Nevada, New Mexico, Wyoming and Utah). She is the founder of Propst Consulting LLC, specializing in energy and environmental policy.

Cottrell Propst earned a Master of Public Affairs from Princeton University's Princeton School of Public & International Affairs, with a concentration in Science, Technology, and Environmental Policy. She worked as a Research Fellow for the Pew Center on Global Climate Change in Arlington, VA, and was a *magna cum laude* graduate of Davidson College with Honors in Political Science.

## Dwayne Phillips

*Vice President, Hydrogen - Tallgrass Energy Partners, LLC*



Dwayne Phillips is Vice President-Hydrogen for Tallgrass Energy Partners, a growth-oriented midstream energy company, transporting crude oil and natural gas from some of the nation's most prolific basins. As Tallgrass VP for Hydrogen, Dwayne is responsible for Tallgrass's growth into the decarbonized energy markets focused on hydrogen energy. He also represents Tallgrass in the role of Manager of Escalante H2 Power (eH2).

Prior to joining Tallgrass, he was the Director, Hydrogen/Syngas Business Unit for Air Liquide, Managing Director of Air Liquide Trinidad and Tobago Ltd. and held commercial management roles in Air Liquide's Tonnage Business in the Texas Gulf Coast.

In his over 30 years' experience in the industrial gas industry, Dwayne held senior level business management positions that included business development, commercial management, and plant operations responsibilities.

Dwayne's background includes operational management, with world-class safety and reliability performance, of air separation, steam methane reforming, partial oxidation, gas-to-liquids, hydrogen membrane and pressure swing adsorption technologies. Commercially, he led the development of several hydrogen projects and a "mega" synthesis gas project that included the integration of several technologies, including ammonia.

Phillips holds a B.S. degree from LeTourneau University in Welding Engineering Technology and completed graduate coursework at the University of Houston-Clear Lake City. He also attended executive management programs at Stanford University, INSEAD, and the Darden School of Business at the University of Virginia.

## Justin Campbell

*Vice President, Power & Transmission - Tallgrass Energy Partners, LLC*

As VP for Power & Transmission, Justin Campbell is responsible for identifying, developing and executing power-related growth projects with sustainability benefits for Tallgrass Energy, a growth-oriented midstream energy company, transporting crude oil and natural gas from some of the nation's most prolific basins.

Campbell brings significant utility industry, strategic planning, corporate development, and financial experience to Tallgrass. In his current role, he is responsible for identifying, developing, and executing power-related growth projects with sustainability benefits.

Before joining Tallgrass, Justin served as executive vice president, chief development officer for GridLiance, an independent electric transmission company. As chief development officer, he was responsible for the growth of the company's portfolio of transmission assets through acquisitions and development of new long-term partnerships with electric cooperatives and public power utilities. He also served as vice president of Edison Transmission, LLC, an affiliate of Southern California Edison formed to pursue new growth opportunities nationwide. There, Campbell helped develop the company's competitive strategy and led growth initiatives in the California ISO, Midcontinent Independent System Operator, PJM Interconnection, and Southwest Power Pool regions. He also held roles in Edison International's strategic planning group and Southern California Edison's Transmission & Distribution business unit.

Campbell earned a Master of Business Administration from the University of Southern California and a Bachelor of Science in economics and engineering science from Vanderbilt University.

