AMERICA'S LEADING FUEL MARKETERS

IGM

INDEPENDENT GASOLINE MARKETING

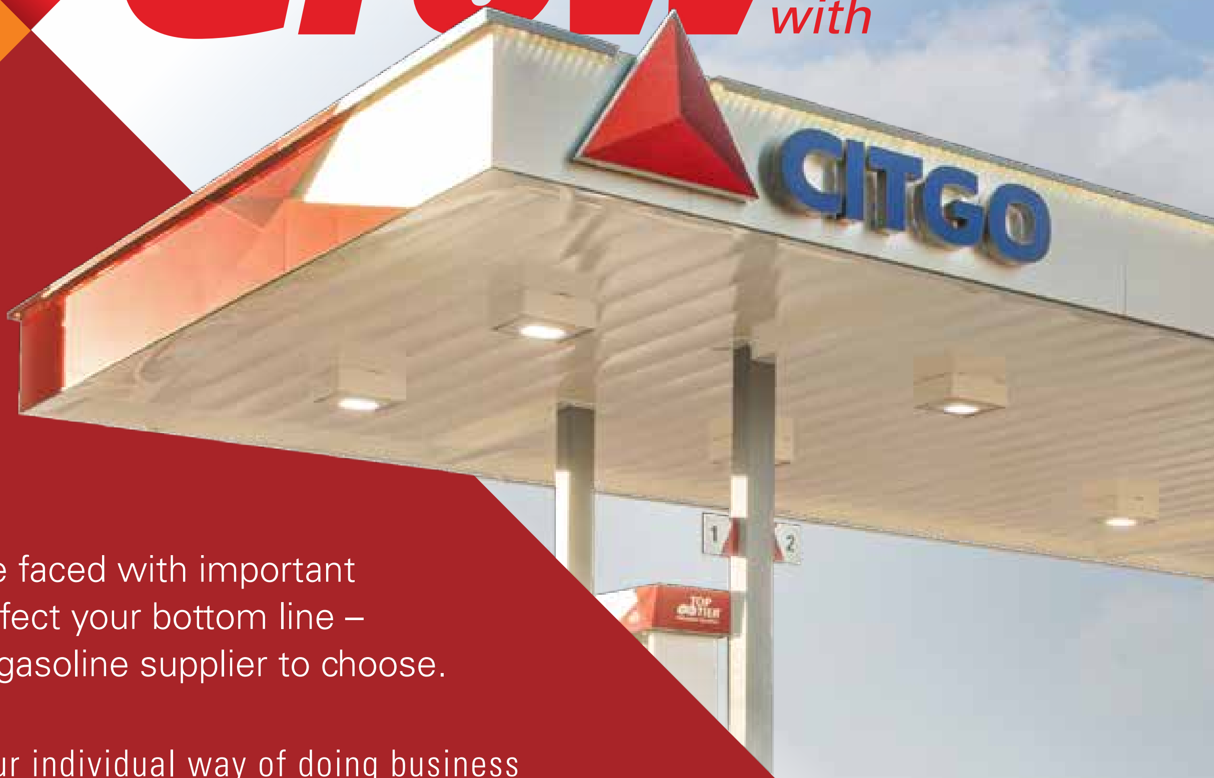
JANUARY | FEBRUARY 2024

SIGMA

inside:

- PROFILE - EG AMERICA
- WASHINGTON WATCH: ELECTION, CONGRESSIONAL RETIREMENTS FRAME 2024 AS SIGMA OUTLINES PRIORITIES
- ARTIFICIAL INTELLIGENCE'S ROLE IN TODAY'S GASOLINE INDUSTRY
- GASOLINE MARKET OUTLOOK FOR 2024

GO with CITGO
Grow with



Each day you are faced with important decisions that affect your bottom line – including which gasoline supplier to choose.

Let us support your individual way of doing business while helping you enhance your business model with

- Industry-Leading Brand Support
- Illuminate Brand Image
- TOP TIER™ TriCLEAN® Gasoline
- Loyalty program support with Club CITGO® and CITGO Pay™
- Educational Programs
- C-Store Image Programs

TriCLEAN Gasoline | CLUB C | CITGO Pay | REWARDS

Let's Grow Together

Contact CITGO
Brand Marketing at
brndmktg@CITGO.com

SIGMA

About SIGMA: Founded in 1958, SIGMA: America's Leading Fuel Marketers has become a fixture in the motor fuel marketing industry. After more than sixty years of leadership, SIGMA is the national trade association representing the most successful, progressive, and innovative fuel marketers and chain retailers in the United States. From the outset, the association has served to further the interests of both the branded and unbranded segment of the industry while providing information and services to members.

SIGMA's approximately 260 corporate members command more than 50 percent of the petroleum retail market, selling approximately 80 billion gallons of motor fuel each year. These member companies operate throughout the United States and Canada.

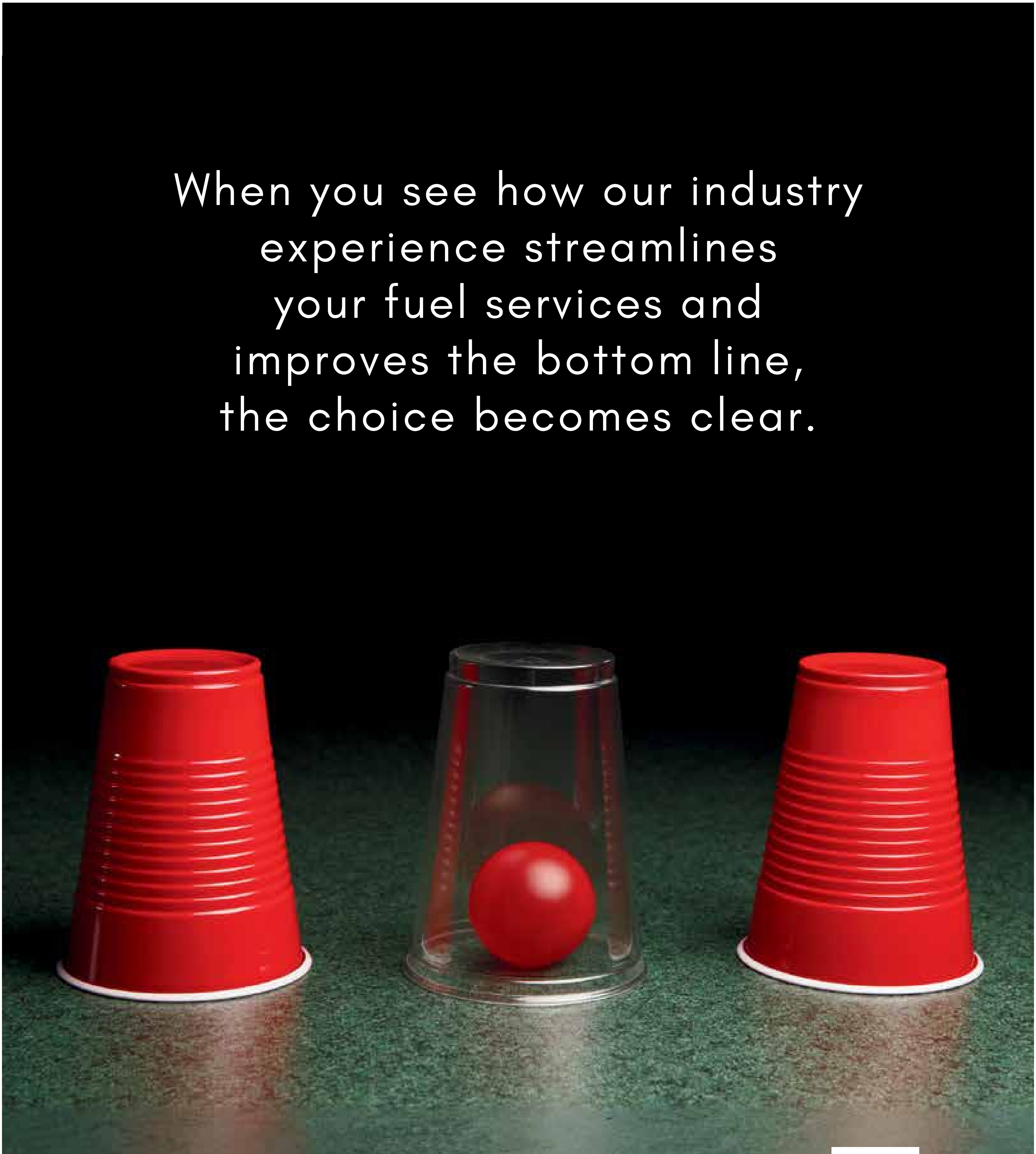
Regular membership in SIGMA is available to companies involved in motor fuel retailing or wholesaling that are not owned by a refiner. In addition, Associate membership is available to fuel supplier companies and to companies that offer financial services, fuel transport services, and fleet card services. SIGMA member companies have long been recognized, both within and outside the industry, as the most aggressive, innovative, and price competitive segment of petroleum marketers.

contents

features

columns

inside...



SOLVONE

- ONE & DONE -

SCAN FOR SOLUTIONS

Let's connect at SIGMA Sun Valley – email Mark.Hayes@SolvOne.com to schedule.

Dale Boyett
SIGMA President

viewpoint

What's in Store in 2024

As I look ahead to the new year, I am excited about what SIGMA has in store. In our rapidly changing energy economy, your involvement with SIGMA is even more important. I urge you to mark your calendar and make plans to attend as many of SIGMA's events as you can this year. The more you participate, the more people you meet, the more opportunities there will be for you to network and grow your business.

Make 2024 the year you attend SIGMA's conferences. You will be impressed by both the caliber of the events and the drive and innovation of our members. From the kick-off Executive Leadership Conference in February, to the Spring Conference in May, to the Summer Legislative Conference and Day on the Hill in July, to the Annual Conference November, these meetings are critical. If you really want to boost the value of your membership, send some of your team to a SIGMA Share Group (back again in 2024, look for more info coming soon!). By sharing best practices with their industry peers on a job-related topic, they will gain insight and knowledge in how to do their job better, as well as a deeper connection to the industry– something that can only benefit your company. All of the SIGMA events for this year and beyond are on the Events page on the SIGMA website. I encourage you to bookmark it and put them on your calendar now.

It is really true that SIGMA is a ground-up organization. By that I mean that the direction of our association is driven by the membership, not set by the Board or the staff. So, if you have an idea, share it! Have a thought on how to boost membership? Share it with SIGMA's Membership Director. Have a great idea for an education session? SIGMA's Director of Education would love to hear it. There are committed people in SIGMA moving us forward. Become one of them.

As you know, 2024 is an election year, so now is the time to lay the groundwork for next year's new Congress by becoming politically engaged. If you have been to any SIGMA events, I know you have heard this before. Make this the year you do it. Invite your congressman to your facility to meet your staff and see firsthand the value your company provides to the local community. Take it a step further and meet with your state representatives – when the federal government is considering an action that will hurt or help your business, your state representatives can be your best allies in the fight. At a minimum, come to the SIGMA Summer Legislative Conference and Day on the Hill on July 23-24. SIGMA has an important role in advancing and protecting our industry with the lawmakers in Washington, D.C. The more SIGMA members that come and walk the halls of Congress in July, the stronger SIGMA's presence will be. You can't assume someone else will do it for you. And no one is a better advocate for your business than you.

I am lucky to be supported by an extremely strong Executive Committee: Matt Ports of Ports Petroleum as 1st Vice President; Erin Graziosi of Robinson Oil Corp. as 2nd Vice President; Bob Bollar of SC Fuels as Secretary/Treasurer; and Richard Guttman of Guttman Energy as Immediate Past President. In addition, we welcomed new members on to the SIGMA Board in November: Chad Hollett, Kwik Trip, Inc.; Donna Sanker, Parkland US; and Kevin Yeager QuikTrip Corp. These individuals join the rest of the Board in volunteering their time, service, and intelligence to keep our association moving forward. Take a minute to introduce yourself when you see them and thank them, as I do, for their generosity and willingness to serve.

There is a lot of value in your SIGMA membership if you make the effort to connect with fellow SIGMA members. I hope 2024 will be the year you do it.
Sincerely,

Dale Boyett

Dale Boyett, Boyett Petroleum
SIGMA President ★

profile:

By Mark Ward Sr.

EG America

EG America, headquartered in Westborough, Massachusetts, is one of the fastest-growing convenience store retailers in the country, offering high quality grocery and fuel products across more than 1,600 retail locations that include Certified Oil, Cumberland Farms, Fastrac, Kwik Shop, Loaf N' Jug, Minit Mart, Sprint Food Stores, Tom Thumb, Turkey Hill, and Quik Stop stores.

Fastrac, one of EG America's 10 convenience and fuel retail banners, has more than 50 store locations in upstate New York.

Headquartered in the United Kingdom, EG Group is a leading independent petroleum and convenience marketer active in ten countries. With more than 6,000 retail sites across three continents, EG Group annually serves more than a billion customers and generates $30 billion in annual revenues, about half of which comes from the Group's annual fuel volume of more than 4 billion gallons. John Carey, president and CEO of EG America in Westborough, Massachusetts, spoke to Independent Gasoline Marketing about the company's U.S. operations that span more than 1,600 sites doing business under ten brands across 30 states.

IGM: EG Group was founded in the United Kingdom by the Issa family in 2001. When did EG Group enter the United States market?

Carey: We entered the U.S. market in 2018 by making two key acquisitions. In 2018, we acquired Kroger's convenience store business, which at the time included more than 700 sites in 18 states that operated under five banner names. Then in 2019, we acquired Cumberland Farms with more than 500 sites in eight states. Those two acquisitions, along with other acquisitions, gave us nearly 1,700 gas station and convenience store sites in more than 30 states. Today, EG America has ten brands.

IGM: At the time, EG Group had been in business for more than 15 years. Why did the company decide to expand to the US market?

Carey: If you're a global player, the U.S. market is attractive. The US car culture and convenience culture adds up to a lot of miles driven.

IGM: That also means the petroleum and convenience sector in the United States is ultra-competitive. What differentiates EG America from other choices available to U.S. consumers?

Carey: There are two answers to that question. First, when we entered the U.S. market, we acquired brands that already had strong local brand recognition. So it wasn't a situation where we came to market with a totally new brand. We evaluated a number of potential acquisitions where our business model could be successful. The Kroger and Cumberland Farms acquisitions fit that profile.

Second, EG Group has a business model that's proven successful globally. We're good at seeing the customer's perspective and creating a customer experience that fits today's lifestyles with their emphasis on mobility. In the United Kingdom, our business formula moved the portion of our revenue stream that was generated by fuel sales from 80% to now about 40%, with corresponding increases in our grocery, merchandise, and foodservice revenue streams.

When we analyzed the U.S. market, we saw that the mobility experience for customers in the United States wasn't as good as what EG Group has achieved in the United Kingdom ▶

John Carey, President and CEO of EG America, joined the company in October 2023.

EG America is headquartered in Westborough, Massachusetts.

EG America partners with many charitable organizations including the United Way and the American Red Cross, raising millions of dollars through in-store fundraisers.

EG AMERICA

Sources: EG Group 2022 Annual Report and Financial Statements, EG America Website (https://www.eg-america.com) and EG Group Website (https://www.eg.group/)

HQ: Westborough, Massachusetts

10 brands including Cumberland Farms, Certified Oil, Fastrac, Kwik Shop, Loaf N' Jug, Minit Mart, Quik Stop, Sprint, Tom Thumb, and Turkey Hill

1,600+ sites sites in 30 states

$10.18 billion annual revenue

49% of gross profit from fuel sales, 48% from grocery and merchandise, 3% from foodservice

100% company-owned sites including 96% company-operated

18,000+ employees

712 million customers served annually

477 foodservice outlets

5 foodservice partners including Sbarro, Burger King, Taco John's, Subway, and Cinnabon

4 charitable partnerships with United Way, American Red Cross, American Cancer Society, and Disabled American Veterans

EG America's Quik Stop, one of the convenience and fuel retailer's 10 banners, has more than 95 store locations across California and Nevada.

and Europe. EG Group has a proven track record across our global network for successfully integrating c-store assets and transforming them into best-in-class customer destinations. So, we saw an opening in the United States where we could bring the value of the brands that we acquired together, and then leverage them with our unique business model. And by combining them with EG Group's existing global operations, we create significant scale. That drives purchasing power for our fuel and non-fuel retail operations. We see ourselves as raising the bar for the industry.

IGM: On the fuel side, where does EG America get its supply?

Carey: We negotiate with many midstream players. Each of our c-store brands sells fuel under its own name, rather than a major oil company brand. By selling our own fuel brands, we don't have to pay major-brand premiums. And by flying our own flag, we enhance the value and recognition of our own banners. Also, this gives us opportunities to educate customers on the benefits of filling up with premium grades.

IGM: On the retail side, is there a prototype for the kind of store, services, and location that fits your business model? With such a large network of sites purchased through acquisitions, rather than by new construction, EG America must have a broad range of sites. How do you rationalize it all?

Carey: We don't want a cookie-cutter approach to our sites. The brands we acquired have high name recognition in their markets. So we're okay with a broad spectrum of location types—urban, rural, large, small, interstate, in town. But since each type must be managed differently, it can be complex. We're always working on our product mix to optimize in-store traffic. On the other hand, we want our sites to be locally relevant and not just fit a mold.
It's true that EG America is at a point right now of continuing to rationalize our network, as opposed to doing new builds and acquisitions—though we're always open to acquisitions that are a good fit. So as we look to upgrade legacy sites, we have different performance metrics for different types of sites. We view the United States not as a single market but as "multi-regional." And it all starts by learning what we're good at—and what we're not—and then seeing how we can bring that value to our brands.

IGM: You were appointed in October to your position as president and CEO of EG America. Tell us about the transition from your previous base in the UK to the United States.

Carey: My career already involved significant experience in global businesses. I spent ten years at BP in senior roles, including CEO of Castrol's global businesses. And as deputy CEO at ADNOC Distribution, I led the company's IPO on the Abu Dhabi stock exchange in 2018. In 2020, I was named a non-executive member of the EG Group Board of Directors. Now as ▶

Kwik Shop, one of EG America's 10 convenience and fuel retail banners, has more than 110 store locations across Iowa, Kansas, and Nebraska.

Cumberland Farms is EG America's largest banner retailer with more than 575 stores across Connecticut, Florida, Massachusetts, Maine, New York, New Hampshire, Rhode Island, and Vermont.

EG America's Culinary Center and food safety teams recently received an "excellent" rating on their annual Safe Quality Food audit, for the fifth year in a row. The Culinary Center makes Farmhouse brand food products for many of EG America's stores.

EG GROUP

Sources: EG Group 2022 Annual Report and Financial Statements, EG Group Website (https://www.eg.group)

HQ: Blackburn, United Kingdom

23 years in business since its founding in 2001 by the Issa family with acquisition of a single retail site in the United Kingdom

10 national markets including United Kingdom, Ireland, France, Belgium, Netherlands, Luxembourg, Germany, Italy, Australia, and United States

$30.6 billion annual revenue

$4.4 billion annual gross profit

49% of gross profit from fuel sales, 35% from grocery and merchandise, 16% from foodservice

6,000+ sites including United Kingdom (671), Europe (3,297), United States (1,600+), and Australia (536)

89% company-owned sites including 66% company-operated

45,000+ employees including United Kingdom (13,657), Europe (8,771), United States (18,000+), and Australia (4,691)

1.29 billion customers served annually including United Kingdom (180 million), Europe (276 million), United States (712 million), and Australia (122 million)

3.5 million daily customers

4.65 billion gallons (17.6 billion liters) annual fuel volume

180 million cups of coffee sold annually

1,181 foodservice outlets

50% projected reduction in carbon footprint by 2030 to net zero by 2050

40% of senior leadership projected to be women by 2025

Minit Mart, one of EG America's 10 convenience and fuel retail banners, has more than 85 store locations across Illinois, Kansas, Kentucky, Missouri, Ohio, and Tennessee.

president and CEO of EG America, I'm an executive director of the EG Group's board.

When I was appointed in October to head EG America, I knew it has a strong platform, a clear strategy to drive growth, and market-leading sites with strong local brands. And I knew that I was coming in to EG Group's largest market by revenue and sites.

My previous experience with global business and now with coming to EG America suggests several things. First, as part of the global business of EG Group, we need an inclusive global culture that shares common threads of values. But EG America also needs a national identity, and our sites need locally relevant concepts.

On the one hand, as part of a global network, we need to leverage the strengths of that network. But on the other hand, our customers care most about their local frontline experience.

So, we have to work on how our global values "show up" and are represented at the local level in a way that creates best-in-market customer experience.

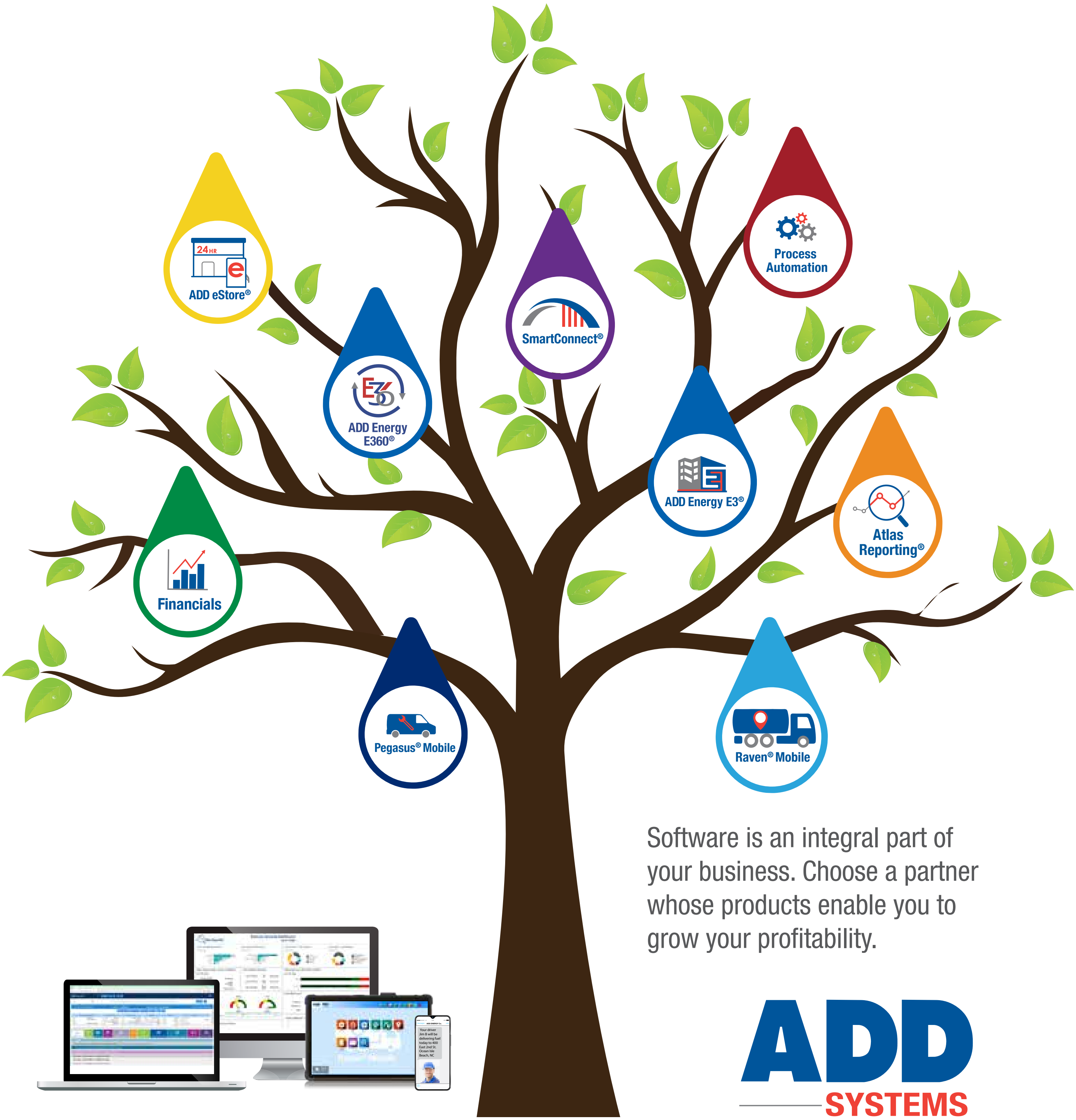
IGM: How does your SIGMA membership benefit EG America?

Carey: It's important that independent marketers have a unified voice. And it's important that we have a common organization where marketers can discuss the future of our industry in a consistent way. The industry is always changing and so are our customers. So as marketers, our approach can't be dictated by extreme views. We must be informed by facts if we want to be part of the national and global conversations on energy and sustainability. ★

EG America's Tom Thumb, one of the convenience and fuel retailers 10 banners, has more than 115 store locations across Florida, Alabama, Mississippi, and Tennessee.

THE ROOT OF YOUR SUCCESS

GROW PROFITS WITH ADD SYSTEMS **SOFTWARE**



Software is an integral part of your business. Choose a partner whose products enable you to grow your profitability.

ADD SYSTEMS

SOFTWARE FOR THE PETROLEUM & CONVENIENCE STORE INDUSTRIES

Learn more at addsys.com
800-922-0972

Washington WATCH

Election, Congressional Retirements Frame 2024 as SIGMA Outlines Priorities

Few events will have a more profound influence on politics and policy in 2024 than the November election.

With less than a year until the 2024 General Election cycle, the country remains just as politically divided as it was the last time the nation elected a President. Inflation, multiple foreign policy crises, and feelings of dissatisfaction and pessimism for the future put voters in a position where their focus is less on voting for their preferred nominee and more on voting against the candidate they fear will put the country on the wrong path. All of this will influence policies that impact the business community, including fuel marketers.

In Congress, Republicans have an easier map to defend and are well positioned to retake the Senate. Vulnerable Democratic incumbents are running for reelection in Republican leaning states. In the House of Representatives, Democrats are slightly better positioned than Republicans to win a majority, but neither party is expected to win enough seats to easily govern a fractured chamber.

Regardless of who wins a majority in 2024, the departure of senior members – 11 in November alone – means the next Congress will have fewer experienced legislators and deal makers.

As the Presidential election cycle accelerates, the opportunities to enact thoughtful, bipartisan legislation will be narrow – and as advancing priority issues for SIGMA gets more challenging, the relationships SIGMA has with the remaining senior members will be more important than ever.

2024 Kickoff

Senate passage of a continuing resolution (CR) (H.R.6363) in November 2023 temporarily funded the federal government through early 2024. The CR funded four appropriations bills through Jan. 19, 2024, and eight appropriations bills through Feb. 2, 2024.

Kicking off a new year under a CR generally has an overall limiting effect on Congressional and agency actions as Congress ▶

ultimately hasn't made final funding determinations for the fiscal year.

The CR, combined with the General election, is expected to have a trickle-down effect, hindering the advancement of certain SIGMA policy priorities.

Issues Overview

In the coming year, SIGMA will support market-oriented policies that can enhance the fuel supply while lowering fuel prices for consumers and improving the environmental attributes of transportation energy.

SIGMA will continue to advocate for the need to sell gasoline containing 15 percent ethanol year-round as well as policy reforms ensuring that SIGMA's members can profitably invest in electric vehicle charging stations.

Although the enactment of legislation that includes biofuel or energy tax provisions is unlikely before the election, SIGMA continues to advocate for a robust biodiesel blenders' tax credit and parity with other renewable fuels using the same feedstocks. Focus on energy tax provisions is unlikely to surface until the end of 2024 when existing biofuel tax policy is scheduled to convert to a more tech-neutral production credit.

Small Refinery Exemptions

The U.S. Court of Appeals for the 5th Circuit in November struck down a Biden Administration decision to deny small refinery exemptions.

Under the RFS, small refineries processing up to 75,000 barrels per day may request compliance waivers if they can demonstrate "disproportionate economic hardship." During the Trump Administration, EPA came under fire for issuing a high volume of SREs and abusing the exemptions to undercut the RFS's mandate to increase biofuel blending.

EPA reversed course during the Biden Administration, when the 10th Circuit found that the Trump EPA failed to explain its decision to discount earlier agency statements that refiners pass through their Renewable Identification Number (RIN) costs and are therefore unharmed by the RFS.

SIGMA disagrees with the recent 5th Circuit decision, as small refinery exemptions fundamentally impact the entire intent of the RVO process by lowering demand for biofuels and diminishing the value of the investments the industry has made in response to Congressional policy.

SIGMA has long advocated for a transparent process to guide EPAs assessment of small refinery waiver requests to ensure that such exemptions don't undermine the intent of the RFS and decrease demand for biofuels.

While the immediate impact of the 5th Circuit ruling is limited, it is possible in 2024 that EPA could appeal the court's decision, further delaying resolution of the small refinery exemptions and hindering industry's ability to determine the extent to which these exemptions are undercutting the annual mandate.

E15

SIGMA expects that E15 will be on the Administration's radar in early 2024. It is unclear, however, if a permanent fix to the year-round sale of E15 can advance during an election year.

There continue to be active negotiations around the bipartisan, bicameral Consumer and Fuel Retailer Choice Act, S. 5145, which would enable the year-round, nationwide sale of ethanol blends higher than 10 percent. This same bill also would prevent states from opting out of the federal RVP rules to require lower volatility gasoline as a means of accommodating year-round E15.

SIGMA anticipates that the Biden Administration will exercise its emergency waiver authority to allow the summer sale of E15 if a legislative solution has not passed before the summer driving season.

Specifically, the Administration faces political headwinds for how it responds to the petition by Governors from eight Midwestern states to let them sell gasoline blended with 15 percent ethanol all year.

EPA in early 2023 issued a proposal that would approve this request, with an effective date in 2024.

In early December, however, EPA asked the court to give the agency until March 28, 2024, to finalize the controversial rule. SIGMA thinks that EPA ultimately will allow the states to opt out but push the effective date from 2024 to 2025.

The timing of EPA's final announcement and its effective date will have a meaningful impact on ongoing congressional negotiations around E15.

Electric Vehicle Charging

In 2024, the Administration will continue to implement the National Electric Vehicle Charging Infrastructure (NEVI) grants established under the Bipartisan Infrastructure bill.

The Biden Administration is facing increased scrutiny over the $7.5 billion program designed to kick start a nationwide network of electric vehicle charging stations. As of Oct. 1, 2023, five states had announced final or conditional awards for charging infrastructure grants, and eight more had opened their NEVI application process.

It has been two years since the program was created, and critics are calling the limited number of charging stations in the market as "a bitter economic pill to swallow."

Facets of the car and trucking sector increasingly are calling on the Administration to set more achievable targets for transitioning to electric cars and trucks.

In 2024, SIGMA anticipates legislative or regulatory activity in Arizona, Colorado, Ohio, Nebraska, South Carolina, Pennsylvania, and Florida. Many of these represent states where legislative activity that began in 2023 didn't ultimately make it over the finish line and is expected to resurface in 2024. SIGMA in 2024 will continue to engage with the Charge Ahead Partnership, which continues to raise public awareness about the need for market reforms that ensure a level playing field and the potential for returns on investments made in EV charging stations. ★

Tiffany Wlazlowski Neuman represents SIGMA on matters of public affairs.

Quantum Services

52 Years of Experience in Convenience Store Inventory Auditing!

We provide inventory audits exclusively to the convenience store industry. Our full-time auditors have an average tenure of 4 years! *Consistent faces = consistent results!*

- Quantum's proprietary item level reporting takes the 100+ pages of detail that comes with an audit and translate it into 5-10 pages of actionable data for our clients to process.
- Our exception-based reporting helps our clients identify the exact location of the differences between on-hand counts and the audit count.

How are you handling dead inventory in your stores?

- We notice chains with stores having up to $10,000 of dead inventory sitting on their books for months. We inform our clients of this with our proprietary *Stock Not Displayed* report so they are able to plan to move it off their books.

SCAN ME

www.quantumservices.com
800.777.9414

The Quantum Difference:

"Quantum has helped us increase profits by contributing to overall loss reduction of about $1,000,000 for each of the past four years. That $4,000,000 is real and measurable."

- BP

"Quantum's expertise and experience saved us over $275,000 in our item-level audit process from just one idea alone."

- Chevron

Inside
RISK MANAGEMENT

Who Is Responsible for Risk Management at Your Workplace?

BY: NATIONAL ACCOUNT EXECUTIVE PATRICK CUNNINGHAM, FEDERATED MUTUAL INSURANCE COMPANY

When it comes to risk management in the petroleum industry, do you know who is making the biggest difference when it comes to maintaining a day-to-day safety culture? The answer should be everyone.

As an essential business, your success is critical to the communities you serve. Your brand is everywhere and your business services are necessary. If risk management and safety were to take a backseat, your reputation, employee retention, and profits could be on the line.

Leadership Responsibilities

Management should be committed to upholding a culture of safety and risk mitigation across the board. Leading by example can make a big difference for all employees, showing them that from the top-down, it's important to adhere to safety policies. Consider the following:

- Investing time and resources to implement sound policies and procedures to protect your bottom line.
- Hosting regular trainings on industry-specific safety subjects.
- Giving employees the tools and incentives to take ownership for their actions.
- Setting clear expectations, rewarding positive behavior, and encouraging open communication.
- Staying up-to-date on current safety topics and regulations.
- Encouraging breaks, providing necessary tools and equipment, and posting safety signage.
- Hiring the right people with safety in mind.
- Employee Responsibilities
- Employees play an equally important role. They are on the front lines making sure work gets done in a safe manner, and will be the ones who have the most interaction with potential hazards. Their responsibilities could include:
- Listening to leaders, adhering to current policies, and participating in training.
- Taking their jobs seriously, especially when driving company vehicles.
- Practicing daily risk management habits, including keeping up with housekeeping and watching for hazards, both digital and physical.
- Leading by example so that new employees see how to work in a safe manner.
- Wearing appropriate Personal Protective Equipment (PPE).
- Reporting to management if they notice risks or unsafe behaviors.

No matter the level of employment, everyone can help manage risk when it comes to keeping your business safe. For more information and resources on how risk management can benefit you, reach out to your local Federated® marketing representative. Federated Insurance® is proud to partner with SIGMA for the benefit of all members. ★

This article is for general information only and should not be considered legal or other expert advice. The information herein may help reduce, but is not guaranteed to eliminate, any or all risk of loss. The information herein may be subject to, and is not a substitute for, any laws or regulations that may apply. Coverage will be determined by the facts of the claim and the terms of your policy, if approved for issue. All products and services not available in all states. Qualified counsel should be sought with questions specific to your circumstances.
© 2023 Federated Mutual Insurance Company.

2024 ANNUAL CONFERENCE

Westin Copley Place • Boston, MA • **Nov. 12–14**

Inside CONVENTIONS

Get Ready for 2024 – SIGMA's in Austin and Boston!

Get ready for 2024 and plan to join SIGMA for the Spring Conference in Austin, TX in May and then for the Annual Conference in November when SIGMA returns to Boston. These are two events you will not want to miss!

When people talk about Austin, they often mention the music. But that's just the beginning of what the city has to offer. In addition to its thriving music scene, Austin is home to world-class museums, one-of-a-kind shopping, and beautiful outdoor spaces. With so many things to do in Austin, you can spend your morning paddling the lake and your afternoon strolling through a celebrated history museum. In fact, there is so much to do that you may want to consider extending your trip so you have time to fit it all in – in addition all the activities of the SIGMA Spring Conference, of course!

So, what does SIGMA have planned for the 2024 Spring Conference? Education sessions on relevant topics with takeaways you can put to immediate use at home? Check. Networking golf tournament on property? Check. Friendly (or fierce, you decide) pickleball competition? Check. Receptions with your peers? Check. Time for meetings with suppliers and customers? Check. Austin is easy to get to and the weather is fine! Come enjoy it with SIGMA this May.

Then, as the weather cools and the leaves begin to turn, come to the SIGMA Annual Conference in Boston. SIGMA returns to Boston again this year with another outstanding event in the works. Home to abundant history, outstanding dining experiences, and elevated shopping, Boston beckons us back. Our 2024 Annual Conference is November 12-14 – right after the presidential and congressional elections. With many retirements this year, there will be new faces to learn in Congress and much education to be done. A new Administration could bring new opportunities for our industry. There will be much to discuss and learn to prepare for what 2025 will bring and SIGMA will be ready to brief you with the full details.

All of SIGMA's events for the year are on the events page on the SIGMA website (www.sigma.org). If you are super organized, the dates for 2025's events are posted there as well. Put them on your calendar and register early to ensure your spot in the conference hotel – a unique link to reserve a hotel room will be emailed to you in your registration confirmation once your invoice is paid.

SIGMA has a lot in store in 2024. We can't wait to see you! ★


SIGMA SPRING CONFERENCE
AUSTIN ★ TEXAS
MAY 6-8, 2024
OMNI BARTON
CREEK RESORT
Register TODAY
www.sigma.org

GILBARCO VEEDER-ROOT

ABOUT US

Gilbarco Veeder-Root is the industry leader beacuse we understand the fueling industry, our customers, and what today's business needs and demands. Our systems and solutions are designed and tested to work together seamlessly to deliver low cost of ownership and a seamless integration across products.

MAJOR PRODUCTS, BRANDS, AND/OR SERVICES

Retail Fuel Dispensers, EV Chargers, EMV Migration, Hanging Hardware, Commercial Fuel Dispensers, Flex Fuel Dispensers, DEF Dispensers and more!

GILBARCO VEEDER-ROOT

7300 W. Friendly Ave.
Greensboro, NC 27410
336.547.5000
gilbarco.com/us

YEAR FOUNDED 1865

MAJOR PRODUCT/ SERVICES CATEGORIES
Fuel Equipment, C-Store Solutions

KEY CONTACT FOR MORE INFORMATION
Lindsay Reinbold
Director, Brand and Communications
Lindsay.Reinbold@veeder.com
410-371-1329

CHANGING THE WAY THE WORLD COUNTS CASH

UPDATE: A Refresher on the Tax Cuts and Jobs Act Federal Tax Structure: A Steadying Force on the M&A Market Amidst an Uncertain Economic Backdrop

BY: DAVID L. CORBETT, CFA, DIRECTOR, & M. VANCE SAUNDERS, CPA, MANAGING DIRECTOR
DOWNSTREAM ENERGY & CONVENIENCE RETAIL INVESTMENT BANKING GROUP,
MATRIX CAPITAL MARKETS GROUP, INC.

In the spring of 2023, we presented a refresher on the 2017 Tax Cuts and Jobs Act Federal Tax Structure. This latest update expands on the original article by adding important information about the TCJA's impact on individual federal income tax rates, as well as providing further clarification on the types of assets that qualify for Section 168(k) bonus depreciation, and in particular how it relates to retail motor fuel outlets. Barring alternative legislation, Section 168(k) bonus deprecation and the more favorable federal individual income tax rates implemented by the TCJA face sunset provisions, creating a finite window to act on them.

The U.S. Federal Reserve has raised the benchmark federal funds rate a total of seven times in 2022 and four times in 2023 in an effort to combat inflation rates, which have been at a level the United States hasn't experienced in decades. The rapid increase in the federal funds rate, which had been near zero since 2009, has understandably received substantial coverage in the media, and the impact of higher interest rates on both corporate and personal finance has also been well documented. Interest rates still remain moderate relative to longer-term averages, but the recent prolonged period of abnormally low rates have reprogrammed perspective for many people. Corporate finance theory would tell you that all else being equal, higher interest rates increase the cost of capital, which should lower valuations of businesses and likely result in reduced M&A transaction volume. Recently, this has proven to be true in many other industries; however, the market for petroleum marketing businesses has actually remained very robust. Businesses in the industry have continued to perform well despite the uncertain economic backdrop and volatility in the public equity and debt markets.

It is important to remember that a key driver of continued strength in M&A valuations, and ultimately volume, since 2018, has been tax rates that are very favorable by historical standards. Some of these favorable tax treatments are beginning to phase out, while for others there is simply uncertainty surrounding how much longer they will be in place.

The Tax Cuts and Jobs Act of 2017 ("TCJA") was signed into law in December 2017. Due to the passage of time, it's easy to lose sight of the fact that this extensive tax code overhaul made it more attractive to sell a business from a net proceeds perspective and also provided substantial incentives to acquire a target business from a buyer's perspective. This article provides a refresher on some of the changes that were made to the tax code as part of the TCJA and highlights why those considering an exit in the near/medium term should keep the favorable tax treatment that currently exists top of mind when comparing the tax implications of a sale relative to historical rates or where rates may be in the future. Some of the key business friendly provisions of the TCJA are summarized below: ▶

Select Provisions of the Tax Cuts and Jobs Act

	Pre-TCJA	TCJA (2018) to Present
Corporate Federal Tax Rates (C-Corps)	Maximum of 35.0%	21.0%
Top Federal Individual Income Tax Rate (for pass through entities)	39.6%	37% (will revert to 39.6% in 2026)
C-Corp. Capital Gains	Taxed as Ordinary Income (35.0%)	Taxed as Ordinary Income (21.0%)
Bonus Depreciation Policy	50.0% in year one for qualified capital expenditures	100% year one expensing of qualified capital expenditures in 2018 - 2022, 80% in 2023; 60% in 2024, 40% in 2025, 20% in 2026 and 0% in 2027
Qualified Business Income Deduction	N/A - taxed at ordinary income rate (maximum rate of 39.6%)	20% (with limitations)

Reduction in the Corporate Income Tax Rate

The TCJA reduced the income tax rate for C-corporations ("C-Corps") to a flat 21%. Prior to the TCJA, C-Corps paid income taxes on a graduated rate schedule with a top marginal federal income tax rate of 35%. The chart below provides a snapshot of the top federal corporate tax rates in the United States from 1973 - 2023 and puts into perspective how favorable the current flat 21% corporate rate is when compared to top marginal tax rates as high as 48% in the 1970's. Unlike individuals or pass-through entities, which may pay lower tax rates on capital gains for the sale of certain classes of property, capital gains for C-Corps are generally taxed at ordinary income tax rates. As a result of the lower corporate tax rate in effect today, C-Corps retain a higher portion of their operating cash flows to either reinvest in their businesses or distribute to shareholders. When all other factors remain the same, the lower corporate tax rate allows buyers structured as a C-Corp to pay more for an acquisition, while still achieving a targeted after-tax return relative to what was possible prior to the TCJA. This factor also helps to mitigate the impact of currently prevailing higher interest rates and corresponding interest expense. While the 21% C-Corp tax rate does not have a sunset provision as part of the TCJA, the threat always remains that new tax laws could be passed, particularly given the burgeoning national debt.

Changes to Individual Income Tax Provisions

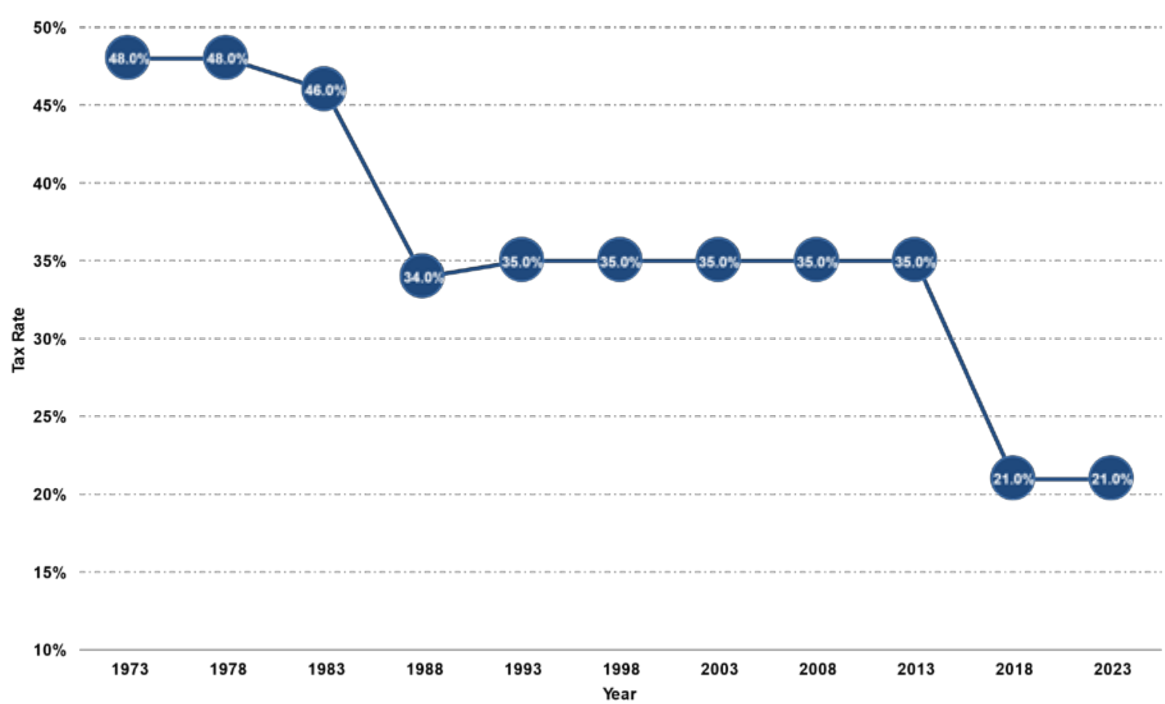
The TCJA lowered most individual income tax rates as well, including the top marginal rate from 39.6% to 37.0%. The law maintained the historical seven bracket structure, but the income thresholds were updated along with the tax rates, in most cases being favorable to the taxpayer. In 2026, based on the sunset provisions of the TCJA, individual income tax rates will revert to their 2017 levels.

Immediate Expensing for Qualifying Capital Investments

Prior to the TCJA, most property acquired in a trade or business was generally capitalized and recovered over time through annual depreciation deductions. While that construct has remained unchanged, the TCJA did include meaningful tax law changes that can significantly accelerate tax depreciation deductions.

Before the TCJA, Section 168(k) of the tax code allowed for additional first year 'bonus depreciation' to be deducted on certain qualifying property. Under this provision, 50% of the adjusted basis of 'original use' property, which was considered to be new rather than used property, could, but was not required to, be depreciated and expensed during the year in which it was acquired. An asset could qualify for this bonus depreciation

Top Marginal U.S. Federal Corporate (C-Corp) Tax Rates 1973 - 2023



Source: Tax Policy Center – Urban Institute & Brookings Institution

under a few different tests, but the broadest and most applicable characteristic was for the property to have a MACRS (Modified Accelerated Cost Recovery System) tax depreciable life of 20 years or less. Broadly speaking, this threshold includes most tangible personal property and excludes most real property (e.g. land and buildings – although buildings for retail motor fuel outlets typically qualify as 15-year property). A retail motor fuel outlet in this context is defined as a facility that 1) is used to a substantial extent in the retail marketing of petroleum or petroleum products, whether or not it is also used to sell food or other convenience items and 2) meets any one of the following three tests: i) is not larger than 1,400 square feet, ii) 50% or more of the gross revenues generated from the property are derived from petroleum sales, and iii) 50% or more of the floor space of the property is devoted to petroleum marketing sales.

The TCJA retained the framework of Section 168(k) bonus depreciation, but also expanded it in several key ways. First, taxpayers were allowed starting in 2018 and through 2022 to deduct 100% of qualifying property and immediately expense it in the year of acquisition rather than depreciating it over multiple years. As of 2023, this provision is now in a stepdown period whereby smaller percentages of bonus depreciation can be taken in year one. The following is the schedule of year-one expensing of qualifying property over the next four years: 2023 (80%), 2024 (60%), 2025 (40%), 2026 (20%). The second key provision was that the requirement that the property must be 'original use' was removed, which allows complete first year expensing of qualifying assets, regardless of age, so long as it is the taxpayer's first use of the property.

This expansion in the tax code has had important implications in the M&A marketplace, especially in the downstream energy and convenience retail sector due in part to the favorable tax treatment afforded to retail motor fuel outlets. Prior to the TCJA, the buyer in an M&A transaction, (assuming it was structured as an asset sale or a stock sale with a 338(h)(10) election), would step-up the tax basis of the acquired assets and depreciate them over time subject to the normal depreciable life of each asset, which typically spans three to 39 years. In the case of retail motor fuel outlets, buildings are typically treated as 15-year MACRS property. Since the acquired assets were considered used (i.e. not 'new') under the prior tax law, no bonus depreciation was allowed. Buyers in this same situation can now immediately expense qualifying assets and potentially realize the associated tax shield well in advance of what was possible prior to the TCJA.

While the bonus depreciation provision has begun its stepdown period from the prior 100% that was in place through 2022, it remains a very favorable tax treatment for acquirors of businesses in the downstream energy and convenience store sector, which should continue to support valuations in the near term. Conversely, the currently slated elimination of bonus depreciation in 2027 could have an impact on M&A activity and valuations. While it's possible legislation could be put in place in the interim to avoid the elimination of bonus depreciation, it is something that both sellers and buyers should have on their radar.

Qualified Business Income Deduction

Section 199A of the TCJA was designed to provide tax relief through a Qualified Business Income Deduction ("QBI") to sole proprietorships and pass through entities such as S-Corporations that did not receive the benefit from the reduction of the federal corporate tax rate to 21%. There ▶

DTN

Three Keys
to unlocking profitability

In today's downstream, timely, relevant data isn't enough — you need proper context to push beyond the uncertainty and fuel greater agility in these dynamic markets.

Discover the three keys to boosting your speed of sale and transaction volumes. They'll also help you reduce risk, increase efficiencies, and enhance customer relationships.

See how to unlock greater profit

©2023 DTN, LLC, all rights reserved. "DTN" and the degree symbol logo are trademarks of DTN, LLC.

is quite a bit of nuance in terms of the practical application of the QBI that is beyond the intended scope of this article, but generally speaking, the deduction is equal to the lesser of 20% of qualified business income plus 20% of qualified real estate investment trust ("REIT") and qualified publicly traded partnership ("PTP") income, or 20% of taxable income, less net capital gain. QBI is the net amount of qualified items of income, gain, deduction, and loss with respect to any qualified trade or business of the taxpayer; however, it does not include any qualified REIT dividends or qualified PTP income. Combined QBI is the aggregate of the deductible amount for each of a taxpayer's qualified trades or businesses plus 20% of the taxpayer's aggregate REIT dividends and income from PTPs.

Like many provisions in the tax code, there are a number of caveats and exclusions that impact the application of the QBI provision. Fortunately, the majority of businesses in the downstream energy and convenience retail sector sit outside of the exclusions and would be likely to take advantage of the provision, subject to certain limitations. The QBI provision is currently set to expire on December 31, 2025.

Conclusion

While rising interest rates and turbulent conditions in the public equity markets have captured the lion's share of headlines and consumed the focus of many so-called economic pundits, the fact that the corporate tax code remains extremely favorable and conducive to M&A activity is often lost. The TCJA tax code changes that have been in place since 2018 continue to serve as a very compelling reason for owners of petroleum marketing businesses that are considering a sale or divestiture to execute on a plan in the near term and capitalize on the benefits before some of those provisions sunset or are otherwise modified.

As always, readers should consult their tax, legal, and/or accounting advisors before making any decision or taking any action. ★

David L. Corbett, CFA
804-591-2048
dcorbett@matrixcmg.com

M. Vance Saunders, CPA
804-591.2037
vsaunders@matrixcmg.com

CSP | CONVENIENCE RETAILING UNIVERSITY

The ONLY Conference Dedicated to Convenience Category Managers

February 28 -March 1, 2024
JW Marriott Nashville | Nashville, TN

Experience innovation, networking and category-based education at Convenience Retailing University. A three-day powerhouse event focused on learning and bonding with complimentary registration for category managers!

Learn more
ConvenienceRetailing.com

Inside FAMILY BUSINESS

PRESENTED BY RONALD C. REECE, PH.D. –
ADAPTED FROM AN ARTICLE BY GLENN R. AYRES

Leadership Selection

Lao-Zhu, the 6th century B.C. Chinese philosopher described the qualities of a leader as selfless, hardworking, honest, and fair, with good judgment and the ability to energize others. Two and a half millennia later, these qualities remain the distilled wisdom of thousands of social science studies on leadership, although we would now add intelligence (implied in judgment) to the mix.

Business owners understand very well that poor leadership cannot only be costly, but fatal. There have been numerous widely publicized examples where questionable judgment and character led to the extinction of once high-flying corporations. It seems each generation has its notorious problematic leaders.

In at least two of the family enterprises, I am working with, the owners have come to the realization that despite the loyalty, and skills, of existing home-grown leadership something more is needed. Their businesses have grown substantially, and it is time for them to hire broader experienced leadership talent. They have begun to search with a broad lens to explore their own network and reach out. However, one of the owners said, "I will use a recruiting service for the first time ever." This is not the first time I have heard that statement. Deciding to break the self-recruiting tradition is not easy.

Regardless of approach, self-recruiting, outsourced recruiting, or a combination of the two it will take time and there will be effort and financial costs involved. There is no guarantee either way of getting it "right." "Investing in leadership" from outside is a big step with significant upside and downside potential.

So, how do we know when someone has the remarkable leadership qualities emphasized so long ago in China? When is it okay to say, "You're hired!"

Scoping Out Leaders

The list of tried, though not necessarily successful, practices are well known. For some, the "eyeball test" is a favorite assessment tool. This approach made the headlines when President G. W. Bush commented on Russian President Vladimir Putin after their 2001 Moscow meeting, "I looked the man in the eye. I found him to be very straightforward and trustworthy."

Experience has shown that "eyeballing" of the potential hire is quite common. It is not unusual for the evaluation process to be limited to a few days of meet-and-greet dinners and cocktails. This approach may be almost as predictive as reading the potential hire's palm. Much more is necessary to really come to know who an individual is and how he or she may fit in the family firm. Considering the risk, shouldn't the hiring process focus on multiple data points including a rigorous and effective leadership assessment?

Future creation of shareholder value largely depends on the company's human resources and senior leadership. Do they have the competencies needed to be successful considering the current family and business circumstances? Is the character and personal style of the target executive a good "fit?" Can he/she really be trusted and, of course, perform well enough to gain the desired results?

Enhancing ROI

It isn't as if the book remains unopened on issues of leadership quality and selection. Social scientists, particularly industrial and organizational psychologists, have been churning out relevant studies for nearly a century, at least as they apply to established organizations. These studies of leadership take on even more importance with this largely unrecognized fact: There is a far greater spread in the dollar value output of leaders depending on their performance level than of rank-and-file workers*. Since the difference in performance at the senior management level has a significant impact on the overall business results, choosing the most effective hiring assessment method is likely to have an unusually high return on investment.

Where, then, should this extra effort be placed? It is obvious that executives require a high level of cognitive ability. Intelligence alone (as measured by IQ) accounts for one third of the factors associated with a senior manager's effectiveness*. And the most powerful indicators of effectiveness are ratings of work ▶

samples, integrity, behavioral consistency, structured interviews, and reference checks. Using multiple lenses or data points such as these, along with psychometric test instruments, provides the greatest additive power to predictions of effectiveness. However, time pressures, old habits and other issues often discourage such a complete leadership assessment. Even under these constraints, a significant impact requiring only a minimal amount of time can be achieved with a powerful variant of the structured interview, Behavioral Interviewing.

Years ago, when one of my family business clients was about to make a very important and expensive executive hire, I recommended an assessment process that included a position competency analysis, psychometric testing on the candidate, and behavioral interviewing. They chose not to go that route but used their customary approach of having the candidate in for two days, showing him around, having dinner together and doing several unstructured interviews. Of course, they did reference checks and contacted industry colleagues who might have known about him. He was hired. Two years later, they were faced with asking for the executive's resignation due to poor performance and lack of fit with the organization. I can't help but think if they had done the "full-Monty" or at least a behavioral interview process, perhaps they could have avoided this result of frustration, opportunity loss, and wasted time and money. Of course, the operative word still is Perhaps.

Interviewing

The face-to-face interview is a central tool in hiring. Interviews are critical to data gathering and human connection. The expectation or purpose, along with location and setting, establish the forum. Informal or formal interviews are about questions and answers, dialogue, tone and content, body language and especially about listening.

There are several types of interviews:

Experience/Activity Interviews – These simply gather limited information about the kinds of activities or experiences a person has had in the past.

"Tell me about your responsibilities in your last job."

Self-Evaluation Interviews – This is the kind of data an interviewee provides about himself, filtered through his interpretive lens, and thus of limited value. They can focus on likes and dislikes, strengths and weaknesses, goals, attitudes, philosophies, or hypothetical questions.

"What is your favorite/least favorite part of your work?"
"What are your strengths as ..."

Behavioral Interviews – This data gets as close as possible to the actual behavior that occurred in a given situation and has a greater predictive value than either of the types referenced above.

Conducting the Behavioral Interview

It is a truism in the behavioral sciences that the best predictor of future behavior is past behavior. With Behavioral Interviewing, we capitalize on this historic and intuitively reasonable insight by using a set of lenses to examine the artifacts of behavior – the tracks that remain after the deeds are done. Behavioral Interview questions are structured to refer to specific situations, tasks, actions, and results.

Prior to the behavioral interview, relevant categories would be defined and questions constructed accordingly. For example, in the area of Problem Solving Skills, a relevant line of questioning might be:

"Tell me about your best accomplishment in your last job. Start with where you got the idea; describe how you planned to carry it out, how you executed your plan, and how you dealt with a major obstacle you had to overcome."

Team Development:

"Tell me about the most emotional confrontation you have had with a member of your executive team. Include how the problem developed and was resolved."

The same questions can, of course, be asked about a variety of situations. For example, the question can be reversed to be about the biggest disappointment and the obstacle the person was unable to overcome. Other options for customizing the behavioral interview process include weighting content areas, using multiple individual interviews, or conducting the interview with a panel.

The responses to these kinds of questions, especially when followed with further behavior description questions, will yield close approximations to what the person did, indeed does, in the given situation.

The interviewer must operate as a keenly interested observer. When the interviewer has prepared thoughtfully, listened carefully, taken copious notes, and talked less than 20% of the time, the chances are very good that the interview will reveal highly predictive patterns of the individual's integrity, resourcefulness, reliability, commitment, and adaptability.

Making it Count!

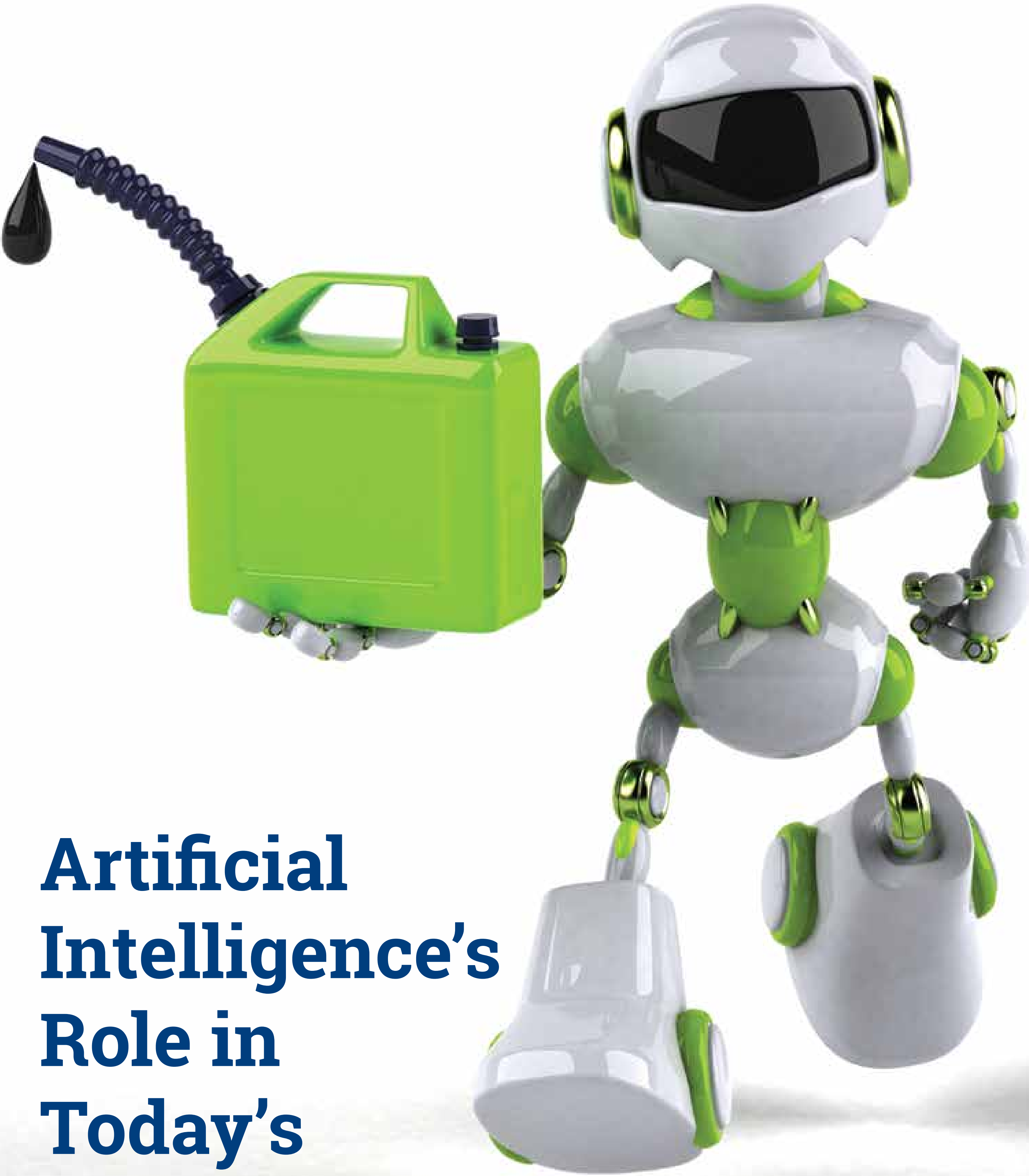
This structured approach, using a leadership assessment and the Behavioral Interview, may not only weed out the bad from the good, but it can help distinguish between the good and the great! Considering the materially different impact that average versus top performing executives will have on their organizations, even one month with a bad hire in a family company will be costly. Investing just a fraction of these opportunity costs up front in a thorough leadership assessment, or at least using Behavioral Interviewing, will significantly enhance the hiring due diligence process and return on investment.

Soon,
Ron

Ronald C. Reece, Ph.D. is a Consulting Psychologist who Specializes in Family and Closely Held Business Consulting.

He can be found at:
800 E. Washington St., Ste-C, Greenville, SC 29601
Phone 864-233-6648 Fax (864) 233-3706,
Email reeceassc@aol.com • Website www.ronreece.com

**Schmidt and Hunter, Journal of Personality and Social Psychology 2004, Vol. 86, No. 1*



Artificial Intelligence's Role in Today's Gasoline Industry

BY MAURA KELLER

ChatGPT. Generative artificial intelligence (AI). Machine learning. These are just some of the terms surrounding the artificial intelligence landscape that is capturing the attention of c-suite executives across many industries and the gasoline marketing industry is no exception.

Rick Bentley is the CEO of Cloudastructure, an award-winning AI surveillance and remote guarding platform. He was previously a senior advisor to Google as well as the CEO of Televoke, which he sold to Uber. He's worked in AI since 2016.

According to Bentley, generative AI (GAI) is a type of artificial intelligence technology that can produce various types of content, including text, audio, imagery, and synthetic data. Bentley says that while everyone's talking about GAI text bots and computers drawing pictures, the single biggest impact AI is currently having on the industry is in the area of security.

"With AI video surveillance and with remote guarding, business owners can finally get proactive with their security and stop crime in real time," Bentley says. "We're seeing about 93% of theft and vandalism attempts being deterred. AI for security might be the biggest security improvement since the alarm system with police dispatch. Humans just can't watch video feeds all day, but a computer can."

As Bentley further explains, the problem is that the computers lack the subtlety to know the difference between things like dancing and fighting, whereas humans understand that naturally.

That's why Bentley suggests the best use of AI for video surveillance is to let the computer watch all the video all the time, something that would be very expensive to pay humans to do, but then hand off to humans when there is something going on that needs human judgment and intervention.

"When the humans see someone breaking into a store after hours, they can talk down to the perpetrators over a loudspeaker and/or dispatch security or police," Bentley says.

Reiko Feaver, partner at Culhane Meadows and a technology, privacy and data security attorney whose practice focuses on artificial intelligence, says that when talking about generative AI, today's companies are really in a "let's see what the possibilities are."

"They are looking into offerings but not necessarily deploying any enterprise-wide use. They may have small groups of select users trying out bespoke solutions, for example," Feaver says. "GAI is being considered as a tool for humans – helping to gather and synthesize information with phenomenal speed to create presentations, sales decks, analysis, etc. The intent is not to displace the human but to help the human process certain tasks with previously unheard of speed to focus on activities that GAI isn't (yet) highly capable of doing – analytical thinking and advice, for instance."

Indeed, any number of processes that require sifting through vast amounts of data very quickly can probably be done better by AI. This includes such things as predictive maintenance, fault detection, operational optimization, and supply chain management.

"Likewise, anything that needs to be done all the time is better done by computers than humans. This could be watching video feeds, monitoring the levels in the fuel tanks, etc.," says Bentley. Within the gasoline marketing space, GAI can find, process, and synthesize enormous amounts of data and create extrapolations from there. According to Feaver, this functionality and capability can be key to marketing campaigns and customer-specific presentations (of course, the risks relating to where the data came from and how it might be protected are real when used for these purposes).

Josh Amishav, founder and CEO at Breachsense, an organization that works with other companies on data breach monitoring, has integrated AI into a number of Breachsense's business processes.

"Within the gasoline marketing industry, AI also can be used for forecasting market trends and consumer behavior," Amishav says. "AI can also be leveraged to improve fuel supply logistics as well as increase customer engagement through personalized loyalty plans and promotions."

In Breachsense's human resources department, they rely on AI-driven tools for resume screening, employee onboarding, and personalized training programs. "This has not only reduced biases in the hiring process but increased the team's efficiency in identifying highly suitable candidates quickly," Amishav says.

Amishav suggests businesses should be utilizing AI to increase efficiency and automate tasks to help reduce human error. For example, Breachsense uses AI chatbots to handle initial customer inquiries. This has significantly reduced response times, freeing up human agents for more complex support issues.

"Businesses are embracing AI because it helps them make better use of their available resources, including human talent," Amishav says. "It also helps drive innovation in products, services, and processes."

Bentley further says that AI surveillance with remote guarding could transform security into a major asset for marketing gas stations. A full 2 to 3% of all violent crime occurs around gas stations and their convenience stores. ▶

"Customers will start to look for monitored stations because they're safer: there's facial recognition, license plate recognition, etc. If someone is in jeopardy at a monitored station, remote guards can 'voice down' the perpetrator, let them know they're being watched and recorded, and simultaneously call or send footage to law enforcement: here's what he looks like, what he's wearing, who he is with, and what direction he's heading in," Bentley says.

Ed Watal is the founder and principal of Intellibus, an IT strategy consultancy based in Reston, Virginia. He has also built and sold several technology and AI startups. According to Watal, the advent of AI is impacting all areas of the gasoline marketing industry, across upstream, midstream, and downstream – from oil exploration to fuel stations.

"Per a 2023 EY survey more than 92% of oil and gas companies are either currently investing in AI or plan to in the next two years. By 2028 the AI spend in the Oil & Gas industry will be over $4.6 B," Watal says. "These estimates are likely understated with the rapid growth of generative AI tools and proliferation across all roles in business operations."

Watal points to some key areas of AI infiltration in the marketplace:

AI for Exploration – Companies like Shell are already leveraging the power of generative AI upstream right at oil exploration. Exploration requires collection and processing of significant seismic data. Seismic technology sends sound waves to explore subsurface areas and uses the data from the scans to create subsurface imagery. Through generative AI the same imagery can be created through a lesser number of seismic scans. This could cut down exploration costs and timeline from months to weeks if not days.

AI for Staff Safety – Biometric devices that capture real time data on the staff in hazardous locations can significantly reduce the chances of hazards and overall safety and well-being of the staff.

AI for Inventory – Improved predictive inventory management and ordering leveraging predictive analytics and forecasting. Shell's inventory analysis and prediction time reduced to 45 minutes from 48 hours.

AI for Ecology – Timely oil spill detection can significantly reduce the ecological impact of accidents involving tankers, barges, pipelines, refineries, drilling rigs, and storage facilities.

AI for Fuel Stations – Companies like ADNOC in the UAE are leveraging Computer Vision AI to create AI powered fuel pumps. These pumps can not only recognize license plates of vehicles, but also auto select the fuel type and quantity that needs to be dispensed.

"Use of AI in fuel stations is not new. Companies like BP have been leveraging machine learning and IOT devices to work in conjunction to collect sensor data from fuel stations for preventive maintenance alerting on the health of pumps," Watal says. "Artificial intelligence has seen a dramatic shift since 2022 with the advent of generative AI. The key change has been that the cognitive capabilities of AI are getting closer to how the human mind works. Generative AI continues to mature down the path with its abilities to perceive, reason, interact, learn and consequently solve problems creatively."

James Hill, president and CEO of MCF Energy, says one of the ways MCF Energy is using machine learning and AI is through the processing of seismic data and interpretation. Using available 3D and 2D seismic data, they are applying cluster analysis and pattern recognition techniques to help visualize the subsurface in ways that have not been seen before.

"This process involves breaking down the conventional seismic interpretation method — what's referred to as wavelet analysis – and looking statistically at seismic data based on sample analysis, which goes way beyond what the human eye can discern," Hill says. "We use technology to analyze and review all of this data."

This process gives MCF Energy insight into where the oil and gas in the rock really are, as opposed to making assumptions. Not only does this help reduce the risk of drilling poor wells or dry holes, but MCF Energy can calculate the volume and the types of reserves that are in the ground.

"AI can help to automate many of the activities that take place in oil fields; everything from handling fuel gauges to monitoring pipelines can benefit from AI. However, oil and gas exploration is one of those very special industries where experienced geoscientists will always be necessary," Hill says. "They are needed to interpret what the computer has generated, and in that respect, we do not see AI or machine learning replacing geoscientists. Overall, the industry is ecstatic about new advancements. The sector has grown exceptionally over the last few years, and the adoption of industry-specific technology has really accelerated economic and operational activity."

Things To Consider

GAI is a new technology for the vast majority of users; and, as Feaver explains, as with any new technology there must be safeguards and rules of use. Companies have to be aware of the risks.

"It's easy to get carried away. AI is still very young and not actually all that smart yet," Bentley says. "When it comes to making judgment calls, those should be made by a human. For instance, a video camera might be able to help detect a fire at a gas pump, but you'd want a human involved to deploy the fire extinguishers. AI can decide when it's time to order more gas, but you will want a human to make the actual purchase."

"It's also become more key to know what applicable regulatory bodies are doing. For instance, the Colorado Department of Insurance in September published final rules for a comprehensive law regulating use of AI by life insurance companies," Feaver says. "State bar associations are also rapidly publishing advisory opinions on considerations attorneys must take into account in use of AI."

Watal suggest that not incorporating AI into the business operations would surely keep a company at a competitive disadvantage due to higher costs and operational inefficiencies.

"Fuel stations that are not AI powered in the future for almost every aspect of their operation may be less favored by consumers than those that are AI powered offering the consumer a simpler faster fueling experience," Watal says. However, the impact would vary depending on who the fuel consumers are. "Fuel stations that are not pure fueling stations but more fuel retailers (a hub for mobility and convenience) are less likely to be impacted in the short term. While, those that are more for long-haul refueling with no retail element are more likely to be impacted."

Amishav says that over-reliance on AI also is a common problem. "AI needs oversight. Having a human verify the output before making sensitive decisions is a must," Amishav says.

In the near future, Feaver still sees GAI being a tool to assist humans with necessary tasks that take a tremendous amount of time but are only prerequisites to the human being able to provide its true value – independent thinking, evaluation, perspective, etc. How long or short "near" is, though, is a big question – and this moves so quickly that next week a response might be completely different.

Bentley believes that someday, AI will fully automate gas stations. Tesla already made a snake-like charging cable to charge electric cars. It hangs out on the wall and when you pull your car into the garage it snakes its way out and connects to the charging port of the vehicle.

"It's only a matter of time before a robot can open up your gas cap, insert the nozzle, select the fuel type and dispense the fuel … but not for a while," Bentley says. "Just imagine all the ways this can go wrong – "the robot fuel pump scratched my paint opening my gas flap," "the robot dispensed gas into my diesel truck," or "the robot overfilled/underfilled my tank." My great grandfather used to say 'be not the first on which the new is tried, nor the last to put the old aside.' The future will be amazing." ★

MOTIVA

INTERESTED IN LEARNING MORE ABOUT MOTIVA'S UNBRANDED FUELS? CONTACT MARK MAGEE
(713) 427-3498 | MARK.MAGEE@MOTIVA.COM

MAKE MOTIVA YOUR SUPPLIER OF CHOICE • **www.motiva.com**

The Numerous Benefits of Remote Forecourt Monitoring Technology

BY TONY CAPUTO, WARREN ROGERS

In today's fuel forecourts, many things can go wrong, often without your knowledge. Or, at the very least, without your immediate knowledge. In most cases, a quick reaction could have been taken and lowered your eventual loss, fine, or repair cost. Fuel leaks, theft, meter drift, clogged fuel filters, broken dispensers, delivery shortages, and other issues can occur at any time. Unfortunately, often only after the 10th or 100th customer complaint, does the issue reach the ear of the store manager. In the meantime, your customers have gone to your competitors for fuel.

Today, manual effort and legacy processes consume an inordinate amount of time for store and corporate staff. While manual staff effort can be considered a soft cost for a company, the amount of labor used and the lack of true operational insight may be costing your business substantially more than you realize.

The largest risk to most operators is DELAY. Delay in becoming aware of the issue at hand and delay in addressing the problem. Delays can result in additional spending on cleanup, notices of violations, fines, and repair costs. Other costs, though hard to tabulate, can include lost customers, reduced gallon throughput, and inside sales when you lose a customer to the competition. As companies grow, existing staff will often take on the responsibility for additional locations without added manpower. This can result in less attention and time paid to compliance and maintenance issues. Fortunately, improved technology can make staff more efficient, allowing operators to maximize staff productivity while still getting the work done. And, in a cost-effective manner!

The primary benefits of remote forecourt monitoring technology can include:

- More insight into your forecourt operation, improving performance, customer satisfaction, and sales.
- Higher levels of regulatory compliance with the ability to react BEFORE a failure occurs.
- More-immediate notification of possible fuel leaks, losses, or theft, decreasing contamination potential.
- Higher staff efficiency with the use of automation, freeing up resources for additional tasks.
- Analyst support to assist with particularly lean companies is often available. 3rd-party analysts can help to monitor your ▶

systems daily for leaks, losses, theft, and other anomalies.

- Exception-based reporting can allow staff to focus on irregular activity immediately versus mining data from raw sources or in overwhelming amounts.

In a nutshell, any manual process you are performing today in the areas of environmental fuels compliance and forecourt maintenance diagnostics can be automated, freeing up store and corporate staff to focus on more important tasks related to the customer. The other benefits include more immediate control and insight into how your forecourts are performing, potentially leading to an improved overall operation and higher customer satisfaction. Here are several examples:

Dashboard Reporting

- 24/7 real-time dashboard reporting applications are common in the industry. Usually available via desktop, mobile, or tablet.
- Most applications allow for user access across your enterprise.
- Many solutions allow for advanced administrator-controlled user setup, allowing admins to customize the capabilities and access of standard users, restricting users to certain regions or stores as well as functionality.
- Many solutions require no changes to underground equipment or dispensers, extending the life of equipment, such as Veeder Root 300s, 350s, etc.
- A few applications do not need VPN access, operating in a data-securing fashion, outside of your customer and credit card networks. Other solutions may communicate in a virtual environment, requiring access to your VPN and security credentialling.

Automatic Tank Gauge (ATG) Alarm Management

- Many of today's available services can capture all active and historical ATG alarms for each location. Alarm histories can often be retrieved and viewed between two date ranges for regulatory inquiries, directly from the dashboard.
- Automated ATG alarm capture can decrease the use of e-fax, centralized mailboxes, or emailed alarm reports, saving user time and paper, where used.
- Eliminates the excessive review of all ATG alarms to locate important priority alarms, saving user time.
- Users can often view both active and historical gauge alarms in real-time.
- Historical ATG alarms may be tracked by location going back several months or years, depending on the installation date.
- Filtering and sorting are often available by alarm category, location, type, city, state, and date range.
- Many ATG alarm reports can be exported to Excel spreadsheet, CSV, and PDF, making sharing during a regulatory inspection much easier.
- Users may be able to set up priority alarms to receive texts, emails, or voice-automated phone calls when these priority alarms occur.
- More-robust alarm notifications can be silenced during repairs or construction within the application's alarm notification setup.
- Daily active alarm reports may also be mailed to enterprise or regional users for review within some applications.

Inventory Level and ATG Delivery Reporting

- Tank Inventory levels and ATG deliveries can usually be reported in real-time via spreadsheet by email or loaded to FTP.
- APIs are often available to retrieve real-time tank levels, ATG deliveries, and dispenser sales upon request.
- Tank inventories and deliveries may also be directed to internal supply desks, 3rd party haulers, and others via email, FTP, or API.
- More-robust applications can also allow for real-time access to tank inventory levels. Users may include drivers, 3rd party haulers, Supply department personnel, and more.
- Leak Detection Compliance Tracking, Report Generation, and Collection
- A forecourt monitoring application may also track ATG-based leak detection testing from your locations' tank monitors. Solutions may also report locations where testing has not yet-passed the 30-day requirement, allowing users to address the exceptions easily for cause, often with quick access to active alarms and sensor status.
- Solutions can also track and report upon CSLD, SCALD, PLLD, sensor and interstitial testing in Veeder Root and Franklin consoles, for example. This process can save corporate staff from manually collecting these reports via email, fax, or filing reports at store level.
- Regulatory reports are then generated automatically and may be stored in cloud-based directories for easy access by approved users.

Tank Configuration Capture and Status Tracking

- More-robust solutions can allow users to view ATG configurations and electronic sensor status in real-time.
- PLLDs, where present, can possibly be reset via the online dashboard, eliminating the need to send a mechanic to a store to reset fuel lines following a fuel runout or power outage.
- Users can also access the top tank monitor reports within many applications using terminal emulator functionality.

Water In Tank Reporting

- Users can often view a report showing all tanks or compartments with water detection across the enterprise.
- Additional Changes in Water reports may be available as a standard service and can be emailed to critical personnel daily for their review.
- High Water Priority ATG alarms can also be set to notify users in real-time should water reach a certain preset threshold in many solutions.

Flow Rate Detection

- Curated flow rates are often displayed for every dispensing position across the enterprise in many forecourt monitoring applications.
- Filtered reports may display those dispensing points in need of investigation or repair.
- The primary benefits of flow rate reporting include targeted filter changes and faster forecourts.
- Filters can then be targeted for change based on specific dispenser and eliminate the need to change filters on all dispensers when slow flow has been reported.
- Operators may become less dependent on store managers to report flow rate complaints, allowing them to address slowing flow well before it gets to a noticeable level for store customers.

Dormant Dispenser Detection

- Today, dispensers that are no longer functioning may have to be reported manually by store managers or store personnel. This process is fraught with delay, erroneous reporting, and may not be reported until numerous customer complaints occur, or sales drop off dramatically.
- More-robust applications can track all dispensers in real-time and reports on dispensers no longer transacting after a preset amount of time.
- Users may be able to see dispensers that are no longer operating along with the calculated daily average gallons sold for that dispensing point. ▶

UPCOMING EVENTS!

2024

FEBRUARY

February 5-7
SIGMA Executive Leadership Conference
Sun Valley Resort
Sun Valley, ID

MARCH

March 19-22
Foodservice & Retail Marketing Meeting
Southwest Georgia Oil
Tallahassee, FL

MAY

May 6-8
SIGMA Spring Conference
Omni Barton Creek Resort and Spa
Austin, TX

2025

FEBRUARY

February 2-5
SIGMA 2025 Executive
Leadership Conference
Vail, CO

APRIL

April 22-24
SIGMA 2025 Spring Conference
Scottsdale, AZ

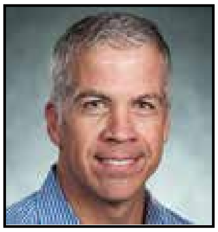
NOVEMBER

November 4-6
SIGMA 2025 Annual Conference
Nashville, TN

- Prioritization of repair can then be based on the impact to the location, aiding in faster repair to those dispensers most critical to your customers and profits.
- Dormant or broken dispensers can cost a site 10-15% or more of sales volume when delays occur in making repairs.

There is no better time than the present to investigate better ways to manage the above areas. Reach out to several remote forecourt monitoring providers to discuss how the use of new technology could make your company or department more effective, improving the customer experience in the forecourt and lowering overall operating costs.

And, what improves the forecourt performance benefits your customers with a more satisfactory experience. ★



Tony Caputo has worked in the fuel, convenience, and grocery industry for over thirty years, holding a variety of corporate and division leadership positions at The Kroger Co., Kroger SPG & Convenience Group, and EG America. He has extensive background and experience in marketing, merchandising, risk management, fuel management, environmental compliance, and operations. In prior roles, Tony was pivotal in the startup and implementation of The Kroger Co.'s 1,600 location fuel program, including the introduction of the Shell affiliate program and leadership of their national fuel merchandising and on-site marketing programs. Transitioning to EG America, Tony oversaw EG's US corporate risk and environmental programs for 1,100 convenience locations.

Tony joined the Warren Rogers' team in 2020 and supports the growth of Warren Rogers and lending insight into the continued development of their advanced wet-stock management tools. Tony enjoys helping fuel operators better understand ways to improve their overall efficiency in the forecourt and assist corporate staff in streamlining their compliance, maintenance, and supply roles.

Tony can be reached at tcaputo@warrenrogers.com and (M) 540-314-6210.

FLINT HILLS
resources®

www.fhr.com

FLINT HILLS RESOURCES
MARKETING CONTACTS

TEXAS & WEST COAST
Nathan Brubaker
817.685.3420

SOUTHEAST
Tom Garncarz
770.625.3405

MIDWEST
Darren Tiemstra
316.828.4849

energy powering

your success

Counting Chickens and Other Operational Forecasting Risks

BY BRIAN L. MILNE, DTN EDITOR, ANALYST

Fast moving information is unremitting in the downstream refined fuels industry, a complicated business where price is just one component in an ocean of data critical for real-time operations. Artificial Intelligence is now being deployed in the industry that will increasingly require laser-like focus on efficiencies to capture margin. But AI is only as good as the data it processes.

AI has different meanings, with algorithms commonly used in trading futures and options contracts in the energy complex an early and simpler form of applying machine learning. Humans are at a distinct disadvantage when trading in real-time in response to known events, such as an announcement by the Federal Open Market Committee of their decision on the federal funds rate. Energy Information Administration's Weekly Natural Gas Storage Report published on Thursdays is another illustration of the challenge for human traders where they just can't compete in speed against algorithmic trading. Let the dust settle, look for an overbought or oversold market frequently accompanying algorithmic trading, and make your trade.

It's more than just speed, with algorithms designed to uncover market anomalies that afford greater profits and to then pounce with a trade. Or to quickly identify a change in trend. All signs show algorithmic trading will continue to expand, capturing an increasing share of the daily trade volume for futures and options in crude oil and refined products, and along with it, greater price volatility.

Gasoline marketers need to hedge risk in this environment, timing their financial trades with transactions in the physical market. Both buyer and seller encounter an identical backdrop even as their intent in the physical market is opposing, which is, of course, the reason for the relationship. Still, the party with better information might eke out more margin.

Fuel contracts negotiated in the physical market are tailored to varying distinctions such as location, product quality, volume, and timing, so don't have the fungibility of futures contracts, at times blurring market visibility. Gasoline and diesel fuel spot values increase clarity, reflecting trades in bulk wholesale markets with fungible characteristics in real-time, namely on common carrier pipelines. Trade size on key pipelines is 25,000 bbl, with trades conducted in a basis value against the RBOB and ULSD futures contracts on the New York Mercantile Exchange. The spot value then floats with the more heavily traded futures contract through the trading session. This relationship diminishes the risk of broader market influences on cash price since it's captured by the futures contract, while the basis value trades at either a premium or discount to the futures contract, adjusting to the supply-demand disposition in the spot market's regional geography.

Likewise, a negotiated fuel contract is frequently indexed to a spot price assessed by a price reporting agency. Here too, the transaction might include a premium or discount against the assessment that finetunes the price paid and received to capture ▶

IMPACT21®

Are You Where You Want To Be In Your Business Transformation Journey?

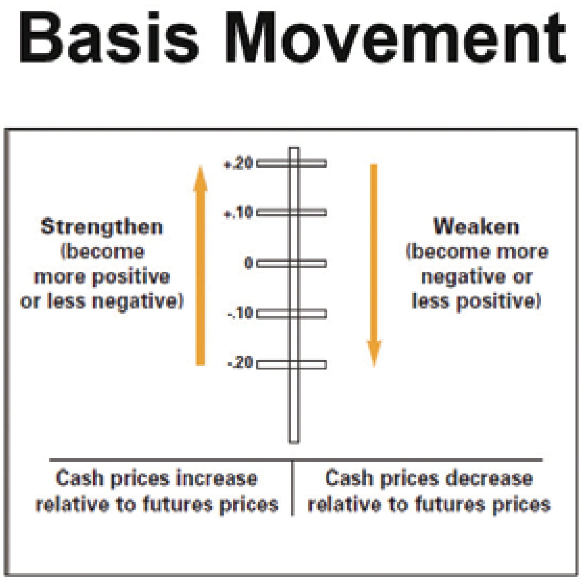
Whether you require a holistic business strategy or need help with specific initiatives like technology solutions, loyalty optimization, business intelligence, or an EV roadmap, you're not alone. We've been tackling challenges for convenience and fuel marketers for 25 years.

Learn how we can help in any step of your journey

Our unique combination of
strategic vision, **financial acumen**, and **operational expertise**
has a strong track record for driving value.

$5+ Billion	$1+ Billion	100+	200+	750+	500+
Profits Unlocked	In Synergies Captured	Technologies Implemented	Valued Clients	Projects Delivered	Category Managers Trained

www.impact21.com



the uniqueness of the market. Against this market structure, parties negotiate terms to transfer fuel from seller to buyer, and a transaction occurs.

Spot markets are price setting markets, with the spot value a cash market price for fuel that is available for immediate delivery. Suppliers use spot price assessments to guide their decisions on where to set their posted price at a distribution terminal for the following day, sometimes the same day when markets are volatile. A buyer uses the spot market to guide decisions on when to dispatch trucks to lift supply, sometimes delaying a lifting to the following day if the spot price is falling sharply knowing the next day's rack posting will be lower.

Both seller and buyer have a limited time window when transacting to sell or buy fuel for the same or following day. Most transactions are structured so fuel is delivered over a specified period of time. To be successful in these transactions, you must have real-time data. Rack and spot market data are critical, as is knowing your supply position. Selling or buying fuel for immediate delivery serves multiple purposes, sometimes allowing a supplier to capture greater margin if the market is short supply. A buyer might look for a bargain if he or she knows the market is well supplied. Fuel transactions for immediate delivery help clear the market, while offering valuable market information for all buyers and sellers.

Just like futures, spot prices can be extremely volatile, and might unearth a profit opportunity. A selloff could provide an opening to buy more fuel and hold in storage, while a supplier can raise his or her offer price in a rallying market to fatten margin. In either instance, not knowing your inventory position could lead to a costly mistake. Consider a supplier with ratable customers that oversells his or her supply at the terminal that leads to a fuel runout, and angry customers unable to lift. Or a buyer committed to a purchase, yet unable to pick up the load because his or her driver's certification to lift from the terminal has expired.

In an extreme case, the May 2020 West Texas Intermediate futures contract on NYMEX went negative on April 20, 2020, trading at a minus $40.32 bbl, and settling the session at minus $37.63 bbl because some buyers did not properly understand the logistics of the trade. Following a six-week market share war between Saudi Arabia and Russia that exacerbated a global surplus in oil, demand was crushed by government lockdowns in response to the COVID pandemic. This led to a super contango, with the WTI futures contract nearest delivery trading at a steep discount to deferred delivered futures contracts. A buyer of the nearest delivered contract could profit by simply rolling the contract forward into the following month.

A feature of the WTI contract, and also the RBOB and ULSD contracts, is that they have an underlying physical delivery location that requires the delivery of the commodity if the futures contract is held to expiration. RBOB and ULSD futures delivery locations are located at approved terminals in the New York Harbor, and WTI futures at the tank farm in Cushing, Oklahoma. Most contracts are financially settled, avoiding the delivery requirement. The May 2020 WTI futures contract was scheduled to expire on April 21, 2020, yet those still holding the futures contract on April 20, 2020, struggled to sell out of the position, meaning they would need to take delivery of 1,000 bbl of WTI specified crude oil from Cushing per futures contract. These contract holders had no capacity to take ownership of ▶

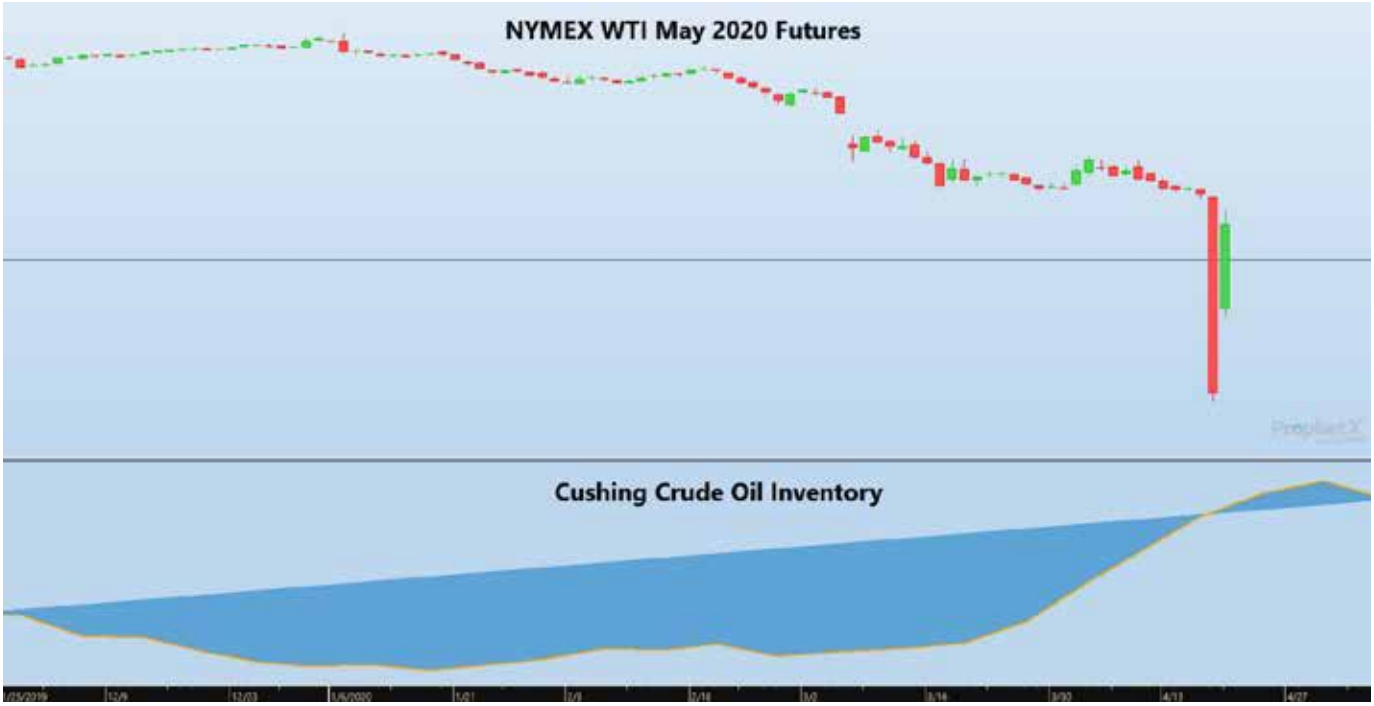
Leading the way

For more than 128 years, McLane has been a trusted distribution partner to retail and restaurant businesses of all sizes, delivering America's most beloved brands and earning their partnership every day. We've worked in lockstep with our customers – from single-store operations to nationwide chains – to boldly drive their growth.

Learn more at mclaneco.com

McLANE®

©2024 McLane Company, Inc. All rights reserved.



the crude oil, while storage tanks at Cushing were nearly full. They sold at a steep loss. While infrequent, oil prices, as well as electricity and natural gas prices can turn negative if there's no place to park the commodity.

Commerce in the downstream fuel industry is exceptionally competitive. Situational awareness is critical, and the only way to improve operational efficiencies. If an organization does not have real-time data and an accurate analysis of their markets, they will, at best, leave money on the table. Organizations will also struggle to take advantage of opportunities if they lack real-time market visibility or fail to recognize their pain points. Agility is vital, and not only to capture a market opportunity, but to solve problems that inevitably crop up in a business with so many moving parts.

Blending data from multiple sources is yet another dynamic organizations must consider in improving their market position. How is weather data integrated into fuel buying and selling decisions? Major weather events can certainly have a big short-term impact on operations, but what about more nuanced weather such as a rainstorm during commuting hours that shifts the consumption pattern?

Increased awareness across your business ecosystem can only add value. Catalog your operational intelligence capabilities and fill the gaps with the data you need in an industry quickly moving towards digitization. Consider the four questions Ray Dalio, founder of Bridgewater Associates, asks when investing:

- What do I truly know?
- What don't I know?
- What do I need to know?
- How do I learn what I need to know?

Founded in 1975, Bridgewater Associates has posted the second highest gains of any hedge fund since its inception. ★

Brian L. Milne is a 27-year veteran of the energy industry, serving in multiple roles at DTN including Editor and Analyst. Milne has delivered dozens of presentations on a wide range of topics discussing energy markets, and has been quoted widely in the media, including the Wall Street Journal, Barron's, USA Today, Newsweek, CNN, National Public Radio, and major regional news outlets. He has authored numerous articles for international magazines, exploring market dynamics and providing forward-thinking commentary and analysis. Milne graduated Monmouth University in New Jersey with a B.A. in History and an Interdisciplinary in Political Science (Magna Cum Laude).

YOUR *store* *your* VOICE™

You are your greatest representative.

SCAN NOW
TO GET INVOLVED

Join store owners across the country who are fighting for fair tobacco policies.

Paid for by Altria Client Services LLC on behalf of Philip Morris USA, U.S. Smokeless Tobacco Co., John Middleton, and Helix Innovations.

©2023 Altria Group Distribution Company | For Trade Purposes Only

Alternative Infrastructure Has Long Way to Go

BY JOHN EICHBERGER, TRANSPORTATION ENERGY INSTITUTE

Presented by

THE FUEL FOUNDATION

For most people, purchasing a vehicle is not typically a fun experience but rather a necessity (I might be the exception – I love shopping for vehicles). Adding to the experience, for those car and truck owners attempting to transition to a low carbon alternative the effort can be expensive, inconvenient, and a logistical nightmare. In general, "we" are not good at change and sometimes the most minor level of discomfort dissuades us from pushing into new experiences, including when we might be interested in transitioning to the next level of decarbonizing our transportation choices. On top of this confusion, most do not know what questions to ask or even who to ask when walking through the unpleasant process of purchasing a vehicle. We are often basing vehicle choice decisions on exaggerated media hype and sound bites that are either completely negative or overly simplified and positive. We expect change to be a seamless and convenient process; unfortunately, it seldom is. Here is a recent experience I had that amplifies the challenges consumers might face.

I recently secured an apartment in Huntington Beach, CA, a part time residence where I can stay when visiting my family in Southern California. In setting up this home away from home, I have been looking for a vehicle. Given my role at the Transportation Energy Institute, I thought it might be educational to try an alternative vehicle. Well, that is easier said than done, even in Southern California. Here is what I have discovered as I explored my options.

Spoiler Alert – My research demonstrates we have a lot of work to do if we want any alternative vehicle and energy option to be a market success.

Electric Vehicle

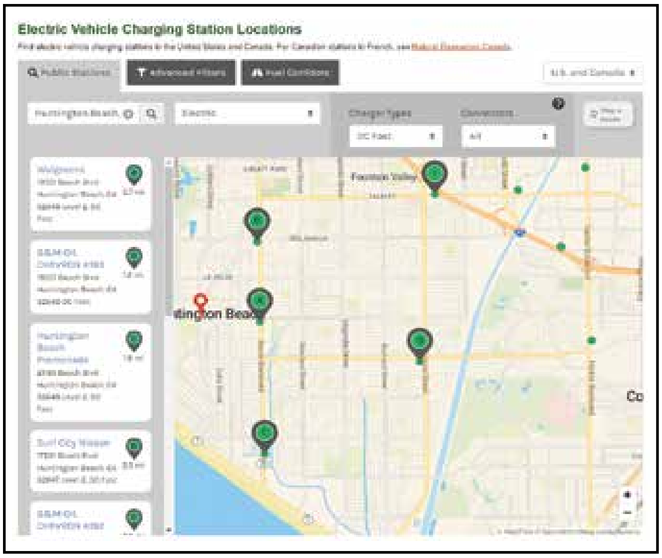
California is far and away the leader in the EV transition, with more registered vehicles and charging stations than any other state. The government has also adopted a policy to eliminate the sale of combustion engine vehicles by 2035. Given those facts, I figured it should be easy to transition to an EV here – but not so fast.

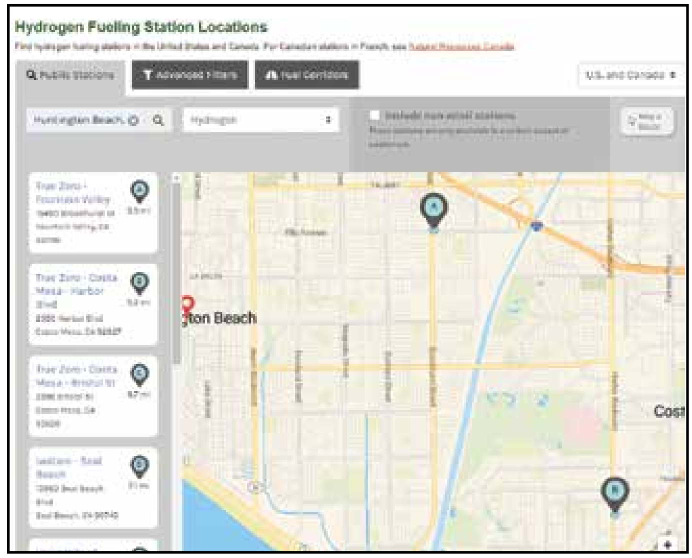
First of all, the apartment I rented does not have charging stations for EVs and when I asked if level 2 charging, for renters, was in their future plans I was met with a blank oblivious look. I am fortunate to have a first floor unit with a gate that leads to the parking area, but the parking space assigned to my unit is not accessible to an extension cord and does not have a power outlet to support even a Level 1 charger. I have no way to charge a vehicle at home, which means I need access to a public charger.

Unfortunately, the number of DC fast chargers in the Huntington Beach area is limited. In fact, according to the Department of Energy's Alternative Fuel Database Center, there are only a handful of DC fast chargers within a few miles of my apartment. PlugShare shows the same number of fast chargers in the area, so I am pretty confident the population of options is limited. And if you are familiar with Southern California traffic, a few miles can take 20 minutes or more to travel. I know more public chargers are coming sometime in the future, but I need to make a vehicle decision now.

Think about this – in 2023, EVs represent about 7% of all new vehicles sales in the U.S. and nearly 27% during the third quarter in California. But, if you live in an apartment or are a garage orphan, it's tough. The majority of people in the U.S. live in apartments, condos or houses without a garage (or a garage that is used for storage rather than parking). How are we supposed to scale EVs if we haven't even made 110v outlets ubiquitously available near parking, let alone 240v or DC Fast Charging?

It would be great to use an EV in California, where the average retail price of 87 Unleaded in early December 2023 was $4.50 and above. But, even in the EV mecca of California, a lot more work needs to be done to provide confidence that an EV can suit someone's needs – even if that someone is fairly well informed about the capabilities and advantages of an EV. Alas, an EV is not my immediate future. ▶





Hydrogen

I have long been a fan of hydrogen fuel cell vehicles and discovered I could acquire a pre-owned FCEV for under \$10,000. But again, as I looked at the market, refueling became a concern. California is the only state that has truly supported H2 infrastructure to date, but a look at the available options in the area left me wanting. There are two retail H2 stations within about five miles of my apartment, but beyond that the landscape is pretty sparse.

There also is some sticker shock when I think about the price of H2 - \$30/kg or more. According to some sources, I could get about 60 miles per kg, so that comes out to \$0.50/mile. By comparison, if I were to drive my old Jeep Wrangler, which averaged about 18 miles per gallon, and paid \$4.50 per gallon, I would be spending about \$0.25/mile. That is a bit tough to swallow.

I plan on owning this vehicle for five to 10 years and I need to know that the vehicle I purchase will be supported with fueling options and auto repair providers.

I remain confident that H2 is a long-term viable fuel, but we need to see an expansion of infrastructure and dramatic reduction in fuel cost. That said, there remains significant momentum in the medium and heavy-duty space for H2 vehicles and I suspect as the market matures perhaps it could breathe new life into the passenger market.

Flex Fuel Vehicle

Another option I could consider is a flex fuel vehicle that can operate on straight gasoline or ethanol blends up to E85. In this scenario, I could refuel anywhere with gasoline and, when available, purchase E85 and save quite a bit of money at the pump. (Currently, E85 is selling for less than \$4.00/gallon in Southern California.) And while production of FFVs has waned dramatically in recent years, there remain millions on the road and in the used vehicle market.

In terms of infrastructure for E85, AFDC shows there are a couple options in my area, but nothing really close. That said, I did notice when visiting my sister in Fullerton that there is an E85 station just down the street from her house, so the option to fuel with E85 would exists occasionally but I wouldn't have to use E85 unless it was convenient for me to do so.

But there is another challenge – finding an FFV on the used car market. I spend a lot of time perusing the AutoTrader app, but when I tried to search for available FFVs, there is no such filter. So, finding one would require determining which vehicles in which years were available in FFV and then scrubbing used vehicle listings and calling dealerships to discover if their available vehicle is an FFV. And given my experience with salespeople at dealerships, that would likely involve several discussions explaining what an FFV is and then dealing with them not knowing how to answer my question. I anticipate this would be a frustrating experience, but the option of such a vehicle could provide a significant financial benefit through lower priced fuel should I be able to find one that I wished to purchase.

Diesel

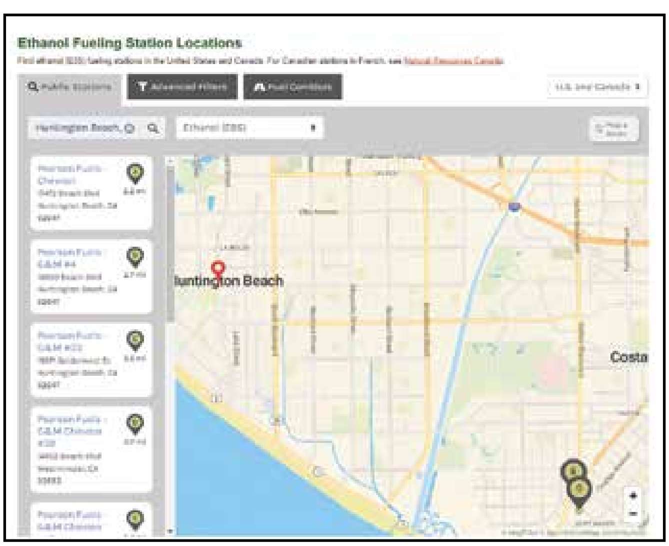
I love my Wrangler (I would love to drop the top, remove the doors and head to the beach!) and did a search at nearby dealers to see what deals might be available. One dealership has two 2022 Wranglers equipped with a diesel engine available for a massive discount. These Wranglers boast a fuel economy of about 25 miles per gallon, which is only slightly better than the 22 mpg rating for a typical gasoline version. But then I looked and found that diesel is selling for about \$5.00 per gallon, a 50 cent jump over unleaded.

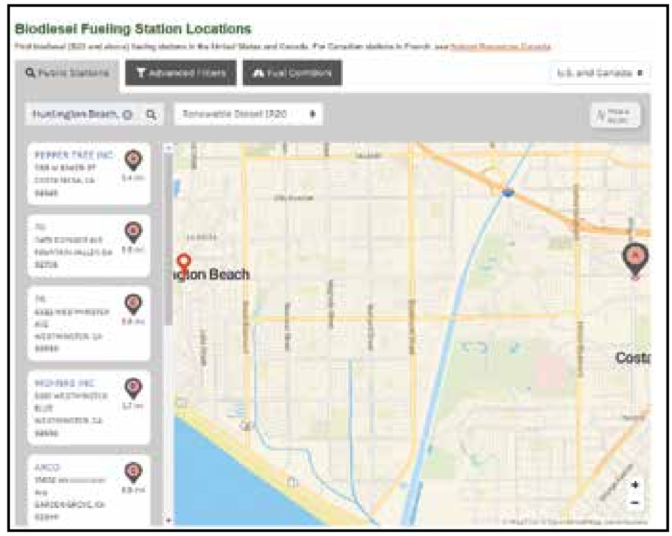
But wait, what about renewable and biodiesel? I looked to see what my options were to purchase a lower emitting, lower price biodiesel or renewable diesel. I have learned that the vast majority of renewable diesel in the U.S. is being sold in CA due to the policy incentives, so I was hopeful. But it seems where I have decided to reside is the Death Valley for alternative energy – there is only one renewable diesel and no biodiesel stations listed in AFDC in the area around Huntington Beach. If I can stomach the price per gallon increase, I still need to weigh-out the inconvenience factor of driving extra miles to fill-up.

We Must Collaborate to Build Infrastructure

It seems that if I want to live in Huntington Beach and have some sort of alternative powered vehicle, the most viable option today might be a traditional hybrid. These vehicles use regular gasoline, available at every station, and package it with a battery system to boost efficiency. Some models get more than 50 miles per gallon, and at \$4.50 per gallon that can add up to a significant savings.

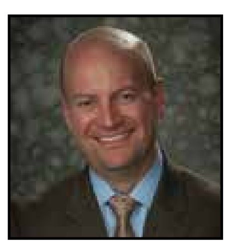
All this said, I was disappointed with the results of my research – I really expected that Southern California would present me with more options than it has. But it also demonstrated to me the critical need for us to work together to build out alternative infrastructure to present consumers with viable options. I can safely assume that very few consumers would have done the research I did – mostly because none of them have to write an article about transportation energy every month! But also because they don't have the time or the commitment to figure this stuff out – selecting an alternative fuel vehicle or energy has to be easy for them and make financial sense.





While I am disappointed, I don't consider the results a negative reflection on any vehicle or energy option – it is simply today's reality. If we want to transition to lower energy intense and lower emissions transportation options, we have to make sure the infrastructure exists to support it – and we have a long way to go.

Someday, I hope and expect to show maps that are clouded with dots indicating publicly available alternative energy stations – DC fast charging stations, H2 stations, biofuel stations, and who knows what else. To achieve this vision, however, we must continue to work together to identify market needs, promote cost effective transportation, increase demand, and support the development of a business environment that delivers a reliable return on investment for the energy retailer. If we fail to create this market dynamic, years from now we will still be chasing our tails and relying on the government to prop up alternative options and we will never realize the true potential of innovative solutions. ★



John Eichberger is Executive Director of The Fuels Institute, a non-profit, independent think tank founded and managed by NACS, the association for convenience and fuel retailing. Drawing diverse stakeholders from the vehicle and fuels industries, the Institute encourages multi-industry collaboration and produces credible, independent analytical reports to better inform business leaders and policymakers about opportunities and challenges in the vehicles and fuels markets.

GASOLINE MARKET OUTLOOK FOR 2024

BY MAURA KELLER

It should come as no surprise that the gasoline market in 2024 will be significantly influenced by the economic recovery facing countries across the globe. As countries continue to rebound from the recent pandemic, the expected impact on the gasoline marketplace means an increase demand for gasoline, with an upward pressure on gasoline prices. Of course, the pace and scale of the economic recovery, and the subsequent impact on the gasoline marketplace, is dependent on the role of emerging markets, as well as the economic health of major consumer nations – issues that gasoline marketers need to pay attention to.

According Irina Tsukerman, business and geopolitical analyst, president of Scarab Rising, Inc., a media and security strategic advisory, and program vice chair of the American Bar Association's Oil and Gas Committee, it is expected that global liquid fuels production will increase by 1.0 million barrels per day (b/d) in 2024. Ongoing OPEC+ production cuts will offset production growth from non-OPEC countries and help maintain a relatively balanced global oil market next year. The price average is expected to remain from around $3.60/gal all the way up to $3.69/gal for 2024, due to the toll of the ongoing OPEC+ production cuts and domestic regulations curtailing production for domestic use. Retail gasoline prices will rise in 2024 primarily reflecting a higher Brent crude oil price.

Continued Emphasis on EVs and Alternative Fuels

With the growing global emphasis on sustainability and environmental concerns, electric vehicles and the use of alternative fuels are being significantly promoted by manufacturers, consumer interest groups, governmental entities, and the media. As such, these cleaner energy sources are expected to eventually lead to a gradual decline in gasoline consumption.

"Gas taxes are dwindling across the United States, offsetting the demand of the EV market demands and assorted regulations boosting the EV market at the expense of gasoline," Tsukerman notes. "The removal of the gas taxes in the second half of 2023 aims to lower gasoline prices for the average consumer before the elections. And while the demand for electric cars is booming and the demand is expected to leap by 35% by the end of 2023 compared to the previous year, in absolute terms there appears to be a loss of appetite for the pricey process."

Birol Dindoruk, the American Association of Drilling Engineers Endowed Professor in petroleum, chemical, and biomolecular engineering at the University of Houston, says that about four-in-ten Americans (38%) say they're very or somewhat likely to seriously consider an electric vehicle (EV) for their next vehicle purchase, according to a recent Pew Research Center survey in June of 2023.

Tsukerman further stresses that unless the recently unveiled Toyota alternative comes to dominate the market, 2024 could be the start of a rollback for the EV market influence even with all the regulations around the globe and continued push by the lobbyists and the industry. Tesla has had to slash its prices substantially and still remains in relatively low demand; across the United States, the various charging problems remain in place limiting EV demand to a few states and companies; greater variation among vehicles is helping with some of the demand, but the downsides for long range driving remain a major factor that will keep oil and gas in demand for the foreseeable future.

"2024 likely will not bring drastic changes in either direction, but it will certainly not put significant limits on gasoline and may even show a slight rise in demand due to economic factors and some of the market disillusionment with EV potential," Tsukerman says. "There is also a growing pushback against ESG regulations, which could also have an impact."

Tsukerman adds that while much of the electrification process is rhetorically putting additional pressure to phase out fossil fuel by various dates in Western countries, in the near term this challenge will be more of a benefit, as more oil and gas will be needed to ramp up this process.

"Worth noting is that hybrid cars and efficient EV Toyotas are more likely to resurge in 2024, which means that the direct use of oil and gas will remain in high demand for the foreseeable future," Tsukerman says. "And as the wind energy market is experiencing serious downfall, expect nuclear energy, rather than any of the current pricier and less efficient alternatives to rise as a direct competitor to gas."

Finally, Tsukerman says it's worth noting that the Russia, Qatar, and Iran cartel are making full use of the current geopolitical tensions in the Middle East to maximize their hold on liquefied natural gas (LNG), with Azerbaijan offsetting some of the deliveries to Europe. Whether Azerbaijan will join forces with other countries, such as UAE to counter this trio's hold on the international markets, or whether UAE will split from OPEC and join the gas cartel could make a significant impact on the distribution of fossil fuels in the forthcoming year.

Geopolitical Tensions and Supply Chain Disruptions

Any geopolitical events affecting major oil-producing regions can have a direct impact on gasoline prices. Additionally, disruptions in the supply chain, whether due to natural disasters or other unforeseen circumstances, can lead to fluctuations in gasoline availability and prices.

That's why gasoline marketers need to keep an eye on global political developments and the impact these developments may have on the supply chain. ▶

Tsukerman says that geopolitical challenges and domestic regulations remain top concerns for oil and gas for 2024. It is not expected that the White House will lift regulations and restrictions on the domestic productions of these fossil fuels; therefore the domestic production will continue to suffer in favor of foreign imports.

"Consumers should expect elevated prices; the industry should expect to be making most of its profit from exports, where the U.S is expected to continue to lead. Potential challenges could include the additional competition from Venezuela oil sanctions being lifted from the United States and increased flow into the Caribbean; likewise Iran is set to increase production – unless sanctions are implemented that could impact the market balancing out the continued production cuts by OPEC+," Tsukerman says. "Those are expected to continue and possibly increase over time as they are profitable to its members, and also, in particular, Russia which seeks to offset losses from sanctions and price caps, and to put pressure on the United States during the election year."

Likewise, Tsukerman points out that a potential confrontation between China and any of its neighbors in the South China Sea/Indo-Pacific could also challenge the security of oil and trade deliveries and contribute to market uncertainty.

"The war with Russia and Ukraine is likely to continue; changes in the market value are outcome dependent, which in turn is once again linked to domestic outcomes – such as whether the House will finally approve Ukraine aid and whether Ukraine in turn is able to make progress to liberate occupied territories, as well as Russia's reaction," Tsukerman says. Finally, another area to watch is the Arctic, where geopolitical tensions and competition for access to resources is rising. So far none of those developments have directly affected the market in general, but depending on the level of assertion by any of the parties involved, it could add additional complications to the web of relations the industry is witnessing.

Top Challenges Facing the Gas Industry

The key challenges facing the gasoline industry in 2024 and beyond include aggressive competition, market consolidation, volatile cost prices, and fluctuating volumes. As Tsukerman explains, large volume players tend to have large sites and/or large numbers of sites. With these characteristics, there are strong incentives to focus on boosting volume.

"Economies of scale and shop sales can make up for smaller margins at lower prices," Tsukerman says. "Independent actors and smaller competitors are trying but failing to beat out large volume players on price. They try to undercut or match bigger players by attracting more traffic to their stations. Price remains a major factor in where most consumers look to fill up."

Dindoruk notes that in terms of gasoline retail marketers, the profit margins will always be limited as it is commodity pricing.

"Product differentiation will still make some impact for the premium products, as such segments have more choices. As the price of gasoline goes on the higher levels (indexed to the high crude pricing) the sales on the high HP vehicles/SUVs may start getting the pressure leading to conservation from the consumers' end," Dindoruk says. "Ethanol as an additive may also have an impact for the overall picture. If the crude prices go down significantly, the overall profitability of such stores may have a higher share from the non-oil products."

However, with smaller- to medium-size operators there is no way to beat out their bigger competitors in price to survive, so Tsukerman advises that they need to focus on playing to their strengths in attracting clients and on niche interest groups that will use them for other reasons, meaning they will choose to fill up at those locations for reasons other than price.

Market consolidation is another major challenge facing the industry. And, like any other industry, gasoline operators are not immune from the pressures of the monopolization trends, which make it more difficult for smaller and independent entities to survive.

"Operatives with access to private equity funding have a huge incentive to grow, which leads to a cycle of change in ownership with three types main types emerging: exiters, those looking to sell their stations; existers, those who are staying put; and excellers - those who are looking to optimize their businesses," Tsukerman says. "The exiters and the excellers end up being the winners in the game. The excellers will understand the importance of being able to keep up with the economies of scale, invest back into their businesses, strive for growth, choose innovative strategies to avoid being beaten in the price game, and look to optimize the price per gallon to finance new initiatives and experiment with fuel pricing. In other words, to survive, independent retailers and gas station operators really need to think adjusting to the demands of the market and evolving in creative ways and directions."

Volatile oil prices also have become the new normal due to geopolitical pressures and regulation impact. This volatility can have far-reaching implications, especially as gasoline marketers cannot control the production, but they can take this issue into account when coupled with the other challenges facing the industry.

As Tsukerman explains, large volume players tend to have large sites and/or large numbers of sites. With these characteristics, there are strong incentives to focus on boosting volume.

Economies of scale and shop sales can make up for smaller margins at lower prices.

"Using real time weighted and blended margins can help avoid these price traps," Tsukerman says. "In other words, it is advisable that the marketers understand their costs better and then can optimize them with setting the price for the fuel."

The fluctuation in volume of production which was at its peak during and shortly after the pandemic is receding, but other factors, such as the geopolitical uncertainty and regulatory concerns, have set in.

"Alternative fuels and changing consumer (and working) habits means the predictability of the pre-pandemic production may never return," Tsukerman says. "This leaves retailers battling against a lack of consistency in their numbers. Therefore merely chasing competition won't work; instead, the marketers should adopt a data-driven approach to track costs, prices, and profit margin to come up with flexible strategies responsive to these external changes and factors."

Uncertainty of the Future

The global demand for both oil and gas is set to peak by 2030, according to the latest IEA projections. Tsukerman points out that regulatory agencies believe that due to the process of electrification the demand for oil and gas will start to decline after three to five years. However, these projections are overly optimistic in favor of electrification. Many of the challenges that could turn electrification into the new normal for average consumers and industries across the board have very long-term solutions; access to sufficient raw materials and their processing is but one of the challenges; the expenses and environmental impact of the electrification process is another; price point and logistics are a third and costly issue that will take a long time to resolve in the United States as well as other countries.

"Short of very rapid breakthroughs coupled with aggressive implementation and government successes in handling these challenges, and contrary to the predictions of most agencies, one can expect oil, and especially gas, to remain in high demand for the next three to five years, and possibly even experience a rise after a brief interlude of electrification excitement that led to some level of disillusionment," Tsukerman says.

According to Dindoruk, the oil and gas industry is not an industry that we can predict even for a year time scale. We have seen over and over that the price of crude can vary significantly.

"One of the main reasons is that the oil price, if decomposed into the fragments, has various elements and one of the fragments is the political pricing, therefore the pricing is not always strictly based on the demand and supply," Dindoruk says. " Local or global security issues, wars, or declarations by various organizations may have significant effects on the price. However, if we look at it from the production side (as it is aligned with the demand normally), there will be a modest increase in the production. In the near future (as we have seen over history) the total production will also be a function of the health of the global economy." ★

The Time Value of Carbon: OEMs and Fleets Tackle the GHG Challenge

BY JENNIFER WEAVER, OEM MARKET DEVELOPMENT MANAGER FOR CLEAN FUELS ALLIANCE AMERICA

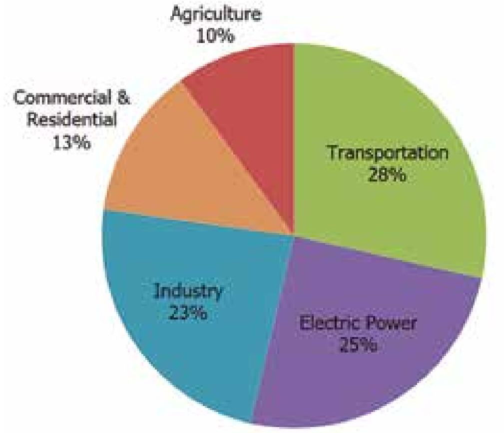
When it comes to the challenges of transportation emissions and climate change, original equipment manufacturers (OEMs) and fleets are on the first line of defense. According to the United States Environmental Protection Agency (EPA), the transportation sector generates the largest share of greenhouse gas (GHG) emissions from the U.S., accounting for over 28% of emissions. GHG emissions from transportation primarily come from burning fossil fuel for cars, trucks, ships, trains and planes. Currently, over 94% of the fuel used for transportation is petroleum-based, which includes gasoline and diesel.

Greenhouse gases such as carbon dioxide, methane and nitrous oxide trap heat and make the planet warmer. Currently, carbon dioxide accounts for the greatest portion of global warming associated with human activities.

Complicating matters further is the fact that carbon emissions are persistent and accumulate over time. Thus, increased levels of carbon dioxide (CO_2) in the atmosphere contribute to global warming now and for decades to come. However, a reduction in CO_2 emissions today can avoid decades of associated heating, providing significantly more value than carbon reductions made later. Therefore, as vehicle manufacturers and fleets are evaluating emissions reduction strategies, they need to consider both the amount of the reduction possible and when it happens. With the clock ticking on aggressive new vehicle emissions standards and climate policy goals, considering the "time value" of carbon reductions is key, and the next decade is critical.

OEMs and fleets are considering a number of options to tackle the GHG challenge. While zero-emission technologies such as battery electric or fuel cell electric hold promise for the future in some segments of the market, it could take decades before those vehicles and the infrastructure needed to support them become viable, affordable and available at scale, particularly for medium- and heavy-duty or off-road applications.

However, low-carbon biodiesel and renewable diesel offer OEMs and fleets better, cleaner, advanced biofuel alternatives that are available for use now in their existing diesel engines, allowing them to make immediate carbon reductions, easily and affordably.



The EPA defines advanced biofuels as renewable fuels that have lifecycle GHG emissions that are at least 50% less than the baseline GHGs from diesel fuel. Pure 100% biodiesel (B100) and renewable diesel (R100) reduce GHG emissions by more than 70% on average compared to ultra-low sulfur diesel fuel. Made from an increasingly diverse mix of renewable resources such as recycled cooking oil, soybean oil and animal fats, the clean fuels industry is a proven, integral part of America's transition to a clean energy future, and it's making an impact today.

You can learn more about the work Clean Fuels Alliance America is doing to help OEMs and fleets decarbonize their operations by attending the Clean Fuels Conference being held February 5-8, 2024, in Ft. Worth, TX. Visit www.CleanFuelsConference.org to register. For more information on the clean fuels industry, visit www.cleanfuels.org. ★

U.S. RINs Complex Under Pressure While Renewable Diesel Helps RVO Mandates

BY PHILLIP HERRING AND MELVIN LEE, S&P GLOBAL COMMODITY INSIGHTS

• D4 RINs prices drop 54.67% in 2023 thanks to renewable diesel surge

• D4 biomass-based biodiesel production surpasses yearly federal RVO mandate by autumn

The price of Renewable Identification Numbers (RINs)tied to biomass-based diesel plummeted by more than half in 2023, not because of biodiesel but rather due to an increased production of renewable diesel that could support inventory builds of ultra low sulfur diesel in 2024 while helping meet federal renewable volume obligation mandates.

D4 biomass-based diesel RIN credits hit 81.25 cents/RIN on Dec. 14, the lowest level since Nov. 2, 2020, and down 54.67% since the end of 2022, according to data from Platts, part of S&P Global Commodity Insights.

In September, the cumulative year-to-date production of biomass-based diesel (D4) surpassed the 2023 RVO mandate of 2.82 billion gallons set by the U.S. Environmental Protection Agency. The early satisfaction of the 2023 D4 RVO can be mainly attributed to growing renewable diesel production and favorable blending economics during most of the second half of 2023. SPCI analysts expect that trend to continue for upcoming years, with California leading the way.

In the U.S. West Coast region, known as PADD 5, "diesel markets are set to weaken over the next few years as new renewable diesel capacity displaces petroleum-based supplies," according to the SPCI December short-term outlook for North American refined products. "U.S. renewable diesel production capacity is expected to nearly double by the end of 2025, with around half of new production capacity commissioning in PADD 5."

Supply from new projects should start even earlier. Marathon said a conversion of its 157,000 b/d Martinez petroleum refinery to a 730 million gallons a year renewables plant was set for end-2023, while Phillips 66 was expected to finish converting its 120,000 b/d Rodeo refinery to an 800 million gallons renewable plant in early 2024. Both plants are near ▶

San Francisco. California's RD demand reached a milestone earlier this year when RD accounted for over 50% of the state's total use. Incentives like the state's Low Carbon Fuel Standard already attract renewable diesel barrels produced in the Gulf Coast and Midwest. SPCI analysts note that California diesel stocks recovered from five-year lows in August to reach five-year highs in October, and they expect California will soon have enough of a diesel surplus that the region will be exporting it to the Pacific side of Latin America.

The Energy Information Administration forecasts U.S. RD production capacity could reach 5.9 billion gallons of capacity by the end of 2025. Renewable diesel is fully refined and cracked so it is virtually identical to and fully replaceable with ULSD, while biodiesel is biodegradable and normally blended up to 5% with ULSD before used in diesel engines. In 2020, the EPA said biodiesel was second to fuel ethanol as the most produced and consumed biofuel in the United States.

2023 RVO Progress

According to the EPA on Nov. 16, through the month of October the United States was 470 million gallons above the 2023 D4 RVO of 2.82 billion gallons produced, only taking into consideration 2023 domestic production. Despite the early satisfaction of the 2023 D4 RVO, demand for D4 RINs was being helped by mandate shortfalls in other RIN categories, such as in conventional corn ethanol (D6) and advanced biofuels (D5).

The data also showed the United States was short about 2.80 billion gallons of D6 production from meeting the 15 billion-gallon RVO for 2023. Due to this shortfall in D6 production, excess D4 RINs were being used to meet compliance for both D6 and D5 RINs, as both categories' 2023 RVOs have yet to be fulfilled -- thus generating demand for D4 RINs and preventing a further collapse in the RINs complex.

Carryover RINs from 2022 will be used to meet the 2023 RVO mandate, but the carryover RIN bank calculations performed by the EPA had yet to be published after the most recent Renewable Fuel Standard compliance date of Dec. 1, when all obligated parties and exporters were required to submit their RIN compliance data for the preceding year to the EPA. Market projections were for 1.80 billion-1.85 billion carryover RINs from 2022 to be available for the 2023 compliance year. Small refineries that petition the EPA for an exemption from their RFS obligations will also be a deciding factor for total carryover RINs from 2022 as exempted volumes must be redistributed across all other obligated parties. If a small refinery can demonstrate disproportionate economic hardship due to their following RFS obligations, the EPA may grant an exemption.

Although the Trump Administration granted 88 exemptions, the Biden Administration has consistently rejected exemption requests, which will mean their having less effect for total carryover RINs from 2022 and 2023 RVO mandate.

Renewable Diesel Growth and RINs

According to the RFS, renewable fuels with a higher greenhouse gas reduction threshold can be used to meet the standards for a lower GHG reduction threshold. Biomass-based diesel, including both biodiesel and renewable diesel, has a required lifecycle GHG reduction threshold of at least 50%, while conventional renewable fuel, or corn ethanol, has a threshold of at least 20%.

Thus, D4 RINs have the versatility to be used to meet RVO mandates for both D4 and D6 categories, which results in a pricing structure that normally values D4 RINs higher than D6 RINs. As a result of the early satisfaction of the 2023 D4 mandate, however, current year D4 and D6 RINs have been valued equally by the market, according to Platts assessments.

In 2023, U.S. production capacity of renewable diesel and other biofuels hit 3 billion gallons/year, overtaking U.S. biodiesel production capacity for the first time, the EPA said.

The milestone in renewable diesel production has been critical in the RIN markets because renewable diesel generates 13% more RINs than biodiesel per gallon produced. For every gallon of renewable diesel produced, 1.70 D4 RINs are generated, while for every gallon of biodiesel produced 1.50 D4 RINs are generated.

Thus, the growth of the renewable diesel sector has resulted in higher-than-expected volumes of D4 RIN-eligible fuels produced and has consequentially led to the early satisfaction of the 2023 D4 RVO mandate.

BO-HO Near 2023 Lows

Favorable blending economics for biomass-based diesel producers was driven by the significant decrease in the BO-HO, the spread between feedstock soybean oil and ULSD, formerly heating oil, futures. This has compounded to the downward pressure seen on RINs prices through November.

The BO-HO was near the lows for 2023, settling at 104.06 cents/gal on Dec. 14, down from the high of 257.01 cents/gal on July 25.

The drop came as CBOT front-month soybean oil futures settled at 49.28 cents/lb, down 32.08% since July 25 and the December NYMEX ULSD futures contract settled at $2.5913/gal on Dec. 14, down 6.71% since July 25.

Although front-month NYMEX ULSD futures have been weaker since July 25, biodiesel blending economics have been favorable, primarily because of the greater percentage decrease in feedstock front-month soybean oil futures.

Favorable blending economics for biomass-based diesel producers was expected to continue in the near term, helped by a lower BO-HO spread driven by higher ULSD prices caused by the Israel-Hamas war and related Middle East geopolitical concerns as well as lower soybean oil prices because of poor export demand coupled with improving weather in South America and an expected large soybean crop.

The BO-HO is used by the biodiesel industry as a barometer to gauge costs and margins for biodiesel production. A lower BO-HO spread will encourage biodiesel producers to maximize biodiesel production, which has recently been caused by a decrease in the feedstock soybean oil price and high ULSD prices.

As the BO-HO increases, the cost to produce biodiesel rises with an associated fall in overall blending economics with unfavorable margins, which could occur if there is an increase in the feedstock soybean oil price or if there is a decrease in ULSD price.

The BO-HO is calculated by multiplying the cost per pound of soybean oil by 7.37, which is the yield for soy methyl ester biodiesel, minus the cost per gallon of ULSD. ★

Phillip Herring is on the S&P Global Platts US agriculture team covering ethanol and other renewable fuels in Brazil and in the US. He has been covering biofuels for Platts since August 2018.

Melvin Lee is on the S&P Global Platts US agriculture team covering ethanol and other renewable fuels in the US. He has been covering biofuels for Platts since May 2023. ★

About S&P Global Commodity Insights

S&P Global Commodity Insights is the leading independent provider of information, benchmark prices with Platts assessments, and analytics for the energy and commodities markets. For over 100 years, we've brought clarity and transparency to the energy and commodities markets, enabling companies, governments and individuals to act with conviction. We know that data is key to decision making, but information alone isn't informative: it can be interpreted in many ways and inform drastically different decisions. The knowledge and experience of our people makes the difference, offering insight that helps customers in 190 countries to interpret fluctuations, uncover new commercial opportunities and gain a competitive edge.

A division of S&P Global, S&P Global Commodity Insights is headquartered in London and employs over 1,200 people in more than 19 offices worldwide located in global business and energy centers on five continents. We employ only the best in the market, and each member of our team is committed to providing an unbiased perspective to help our customers monitor market movements, value commodities, recognize opportunities, mitigate risk, and plan with greater confidence.

PDI TECHNOLOGIES

What 2024 Trends Will Impact Your Business?

The landscape of the fuel and convenience industry is constantly changing. Understanding emerging consumer trends better can give you a clear business advantage. Get expert insights on what to expect in 2024, along with helpful tips for acting on new business opportunities.

Discover the Trends at
pditechnologies.com/trends

pditechnologies.com

© 2024 PDI Technologies, Inc. All rights reserved.

A Pragmatic Look at the Energy Transition:
Q&A with Justin Baxley, PDI Technologies

How soon will the energy transition from internal combustion engine (ICE) vehicles to electric vehicles (EVs) happen? What's at stake for fuel and convenience retailers? Justin Baxley, VP of Retail Product Management at PDI Technologies, recently shared his insights on how to navigate the ongoing transition.

Where do you think we are now in the timeline of the energy transition?
JB: We've certainly passed the honeymoon phase, and the reality is setting in that there are some significant obstacles in terms of EV adoption and charging infrastructure. In fact, we're discovering that the energy transition will likely take decades rather than years.

One interesting aspect is that much of the recent EV growth has been fueled by government incentives, to the point where some larger retailers actually have full-time grant writing departments. Unfortunately, taking advantage of government money isn't a sustainable approach for the long term, because sooner or later that money will disappear.

I think we'll really see the market start to change when we focus on responding to consumers' actual needs rather than latching onto government incentives. At that point, we'll see a different approach to investment. The role of the major energy companies in capital deployment will be huge—but it must be driven by the data. We're already starting to see that with BP's purchase of TravelCenters of America and Shell's purchase of Volta.

It's easy to jump to the worst-case scenario and say, "It will be the death of us if fuel becomes less important in our business." But in reality, our industry is already great at serving a lot of needs beyond fuel and the current worst-case scenario looks more like lower volumes rather than a full energy transition. Futurists and bureaucrats are always more pessimistic AND more optimistic than history merits.

Do operators need to think about EV drivers differently than traditional drivers?
JB: It's probably more meaningful to think about driving or mobility as a concept. C-stores already do a great job of serving consumers wherever they're going. The fact that somebody is driving an ICE vehicle, plug-in electric, or hybrid—or even riding a bicycle—shouldn't matter.

At the end of the day, people are moving in predictable traffic patterns in metropolitan areas, rural areas, and on major thoroughfares. C-stores are ideally situated to serve people in the context of their mobility and movement needs, regardless of their preferred mode of transportation.

Our industry has done the hard work of ensuring that we're in the places where people are moving, so that aspect doesn't change just because someone is driving an EV.

Will those EV drivers need something that c-stores don't currently offer? ▶

StoneX®

Hedging & advisory services for:

Crude oil ▪ Natural gas
Refined products ▪ Renewable fuels
NGLs ▪ Petrochemicals

StoneX Group Inc. (NASDAQ: SNEX) provides clients worldwide with a range of customized commodity risk management tools and financial services that help protect their margins, mitigate price risk, secure budgets, and manage volatility.

Clearing and execution services

Clients worldwide can take advantage of our clearing and execution services, as well as gain access to both domestic and foreign markets on 33 global exchanges.

Advisory services

We provide a variety of services, including advice on purchasing, maintaining records, conducting research, and education on hedging.

OTC product offerings

Our OTC products come with flexibility and customization options to better serve our clients. They can customize the volume, tenor, grade, and even geographic location to better align with their objectives.

Market Intelligence

Our platform offers a wide range of market intelligence, including fundamental and technical market data, forecasting, news, econometric analysis, and insights for the majority of widely traded commodities.

Josh Brockway | Vice President - Energy
StoneX Financial Inc. – FCM Division
1-816-410-3311 | Joshua.Brockway@StoneX.com

StoneX Group Inc. provides financial services worldwide through its subsidiaries in accordance with applicable law in the jurisdictions where services are provided. All references to and discussion of OTC products or swaps are made solely on behalf of StoneX Markets LLC ("SXM"), a member of the National Futures Association ("NFA") and provisionally registered with the U.S. Commodity Futures Trading Commission ("CFTC") as a swap dealer. SXM's products are designed only for individuals or firms who qualify under CFTC rules as an 'Eligible Contract Participant' ("ECP") and who have been accepted as customers of SXM. All references to exchange-traded futures and options are made solely on behalf of the FCM Division of StoneX Financial Inc., a member of the NFA and registered with the CFTC as a futures commission merchant.

The trading of derivatives such as futures, options, and over-the-counter (OTC) products or "swaps" may not be suitable for all investors. Derivatives trading involves substantial risk of loss, and you should fully understand those risks prior to trading. © 2023 StoneX Group Inc. All Rights Reserved.

JB: The obvious answer is charging infrastructure. But there's also a big opportunity for convenience spaces to transform themselves when it makes sense to go in a more fuel-agnostic direction.

We've made c-stores the place to go for things that people want everywhere around the world, whether that's buying a lottery ticket in Dallas or buying fried chicken in South Korea on Christmas day. The convenience industry has always had a unique micro-entrepreneurial spirit that lets us adapt quickly to meet constantly changing consumer behaviors.

Plus, as far as I know, no one has put a space toilet in a car, so there's still the reality that people will need to stop for a bathroom. And that might not be available at the next supercharging station, which doesn't always cater well to every mobility use case. So, c-stores will always have an opportunity to serve fundamental human needs better than others. And for anyone who is cynical about c-store restrooms, just try visiting the restroom in a discount store some time.

What would you say to operators who are nervous about the energy transition?
JB: You just need to focus on offering what consumers want. We're almost selling ourselves short if we think we can't transform our market spaces. In fact, many retailers are already embracing the needs of EV drivers while they're still capitalizing on selling fuel.

I think c-stores can be the unsung heroes of the EV transition in a way that might seem counterintuitive to people who don't really understand our industry. We have clean bathrooms, we have the right product mix, we're located in the best traffic patterns, and we have approximately 150,000 micro-entrepreneurs who are great at adjusting to the needs of their unique regional and local communities.

Success will ultimately depend on having the flexibility to adjust as necessary—just like we all did during the pandemic. Plus, there will be a lot of opportunities to capitalize on the longer dwell times when EV drivers pull in for a charge-up.

What's your take on the overall impact of sustainability in convenience retail?
JB: The energy transition will look very different, depending on where you operate. It's much further along in many areas outside the United States. But California will be quite different than most states, and even within different zip codes in California.

That's why you need to understand how sustainability plays in your local community—and the value proposition to your business. It's easy to be cynical about sustainability, given the industry that we're in. But I like to remind people that even if sustainability isn't your top business priority, you at least need to have a plan or strategy. If, for nothing else, a sustainability strategy can help with the public relations pressures we all face, as well as the downstream regulatory pressures.

But it can also be a great way to attract new customers and create goodwill in your community. The good news is you can still sell fuel while providing incentives for someone who wants to drive an EV or hybrid. It just comes back to being flexible and meeting your customers where they are.

To learn more about the energy transition and how PDI can help prepare your business for whatever comes next, visit the PDI EV Hub at https://pditechnologies.com/ev-emobility/. ★


SIGMA
SIGMA 2024 EXECUTIVE
LEADERSHIP CONFERENCE
February 5-7 • Sun Valley Resort • Sun Valley, ID
Register Today!
www.sigma.org

U.S. Northeast High-Quality Gasoline Prices Dip

BY STEPHANIE CRAWFORD, ARGUS MEDIA

Prices of more expensive, cleaner-burning gasoline grades at the U.S. Northeast took a hit heading into December. New York Harbor RBOB octane spreads narrowed to the lowest in nearly seven months during the last week of November on weaker U.S. Gulf Coast high-octane values, an open domestic arbitrage and lower regular RBOB imports.

The New York Harbor barge premium/regular RBOB spread averaged 37.47¢/USG that week, the lowest since early April aside from one day in June, and 7.54¢/USG lower than the November average prior to this week. Premium RBOB cash differentials to Nymex gasoline futures in the region dropped to a five-month low at Nymex +39¢/USG on 27 November as weaker New York Harbor spot demand followed declines in the Gulf Coast market. Prompt Gulf Coast Colonial Pipeline premium RBOB differentials fell to an eight-month low at Nymex +1.4¢/USG in mid-November before rebounding slightly.

Steady levels of high-octane blending components in the Gulf Coast have likely played a role in a widening domestic arbitrage to New York Harbor and have incentivized Colonial shipments to the Northeast. Gulf Coast/New York Harbor spreads for premium RBOB averaged 42.2¢/USG in November, well above the Colonial Pipeline tariff, line loss and cost of line space. The spread approached a one-month high at 48.6¢/USG in mid-November amid declines in the Gulf Coast. Regional spreads for regular RBOB, CBOB, and 87 octane conventional gasoline have averaged 23.84¢/USG so far this month.

At the same time, Atlantic Coast regular RBOB imports fell to nearly a five-year low at 47,000 b/d during the week ended 24 November, according to data from the Energy Information Administration (EIA), contributing to tighter prompt regular RBOB supplies. Regular RBOB transatlantic arbitrage economics have been poor this season and have been further hindered by higher transportation costs. Freight rates for 37,000 metric tonne clean vessels between northwest Europe and New York Harbor reached nearly a three-month high at $39.18/t on 29 November, according to Argus data. The RBOB/Eurobob spread has been negative most of this season, indicating a weak transatlantic arbitrage. Imports are projected to remain thin through at least the first week of December, according to market participants.

In December, alkylate arrivals in New York Harbor were slated to increase and weigh further on octane spreads. Alkylate cargo arrivals were projected to total about 960,000 bl in December, up from zero in November and 650,000 bl a year earlier, according to Vortexa. Those deliveries mostly originated from Reliance's 1.2mn b/d Jamnagar refinery complex in Sikka, India.

Gulf Coast conventional gasoline blending component inventories, including alkylate and reformate, rose by 2pc to 30.29mn bl in late November, according to EIA data. Atlantic Coast conventional gasoline blending component inventories fell that week by 5.5pc to 6.13mn bl. Barge premium RBOB outright prices fell to an eight-month at low at $2.57/USG on 27 November and then rose to $2.67/USG a couple days later as futures rebounded. Barge regular RBOB prices dropped to a one-week low at $2.21/USG on 27 November and increased to $2.30/USG just two days later. ★

Independent Gasoline Marketing
is published six times a year
by SIGMA, 1330 Braddock Pl., #501
Alexandria, VA 22314

MARK FRANZ
PUBLISHER
AMY RIDER
ASSOCIATE PUBLISHER & EXECUTIVE EDITOR
MEREDITH JAMES
VICE PRESIDENT OF SALES AND MARKETING

EXECUTIVE COMMITTEE
PRESIDENT
DALE BOYETT, BOYETT PETROLEUM

FIRST VICE PRESIDENT
MATT PORTS, PORTS PETROLEUM

SECOND VICE PRESIDENT
ERIN GRAZIOSI, ROBINSON OIL CORPORATION

SECRETARY / TREASURER
ROBERT BOLLAR, SC FUELS

IMMEDIATE PAST PRESIDENT
RICHARD GUTTMAN, GUTTMAN ENERGY

BOARD OF DIRECTORS
DIRK COOPER, HI-NOON PETROLEUM, INC.
BILL GALLAGHER, OFFEN PETROLEUM
STEPHEN HIGHTOWER, II, HIGHTOWERS PETROLEUM COMPANY
CHAD HOLLET, KWIK TRIP, INC.
JEFF MANSFIELD, GLOBAL PARTNERS LP
DONNA SANKER, PARKLAND FUEL CORPORATION
ALISON SCHMIDT, U.S. VENTURE
AJ SICCARDI, METROPLEX ENERGY
LYNN WALLIS, WALLIS COMPANIES
KEVIN YEAGER, QUIKTRIP CORPORATION
BRIAN YOUNG, YOUNG OIL

Copyright © 2024 by Society of Independent Gasoline Marketers of America, all rights reserved. Independent Gasoline Marketing, a bimonthly magazine, is mailed third-class bulk postage paid at Merrifield, VA. Appearance of advertisements in Independent Gasoline Marketing does not constitute endorsement by SIGMA or its members of the products of services advertised.

Subscriptions are available to non-members for $50 per year ($75 for foreign, including Canada). A subscription form is available at www.sigma.org or call (703) 709-7000 for more information. Send address changes to SIGMA at 1330 Braddock Pl., #501, Alexandria, VA 22314; Phone: 703.709.7000; Email: sigma@sigma.org

For advertising rates and information, contact James Rogers at SIGMA at (703) 709-7000. Independent Gasoline Marketing is published by SIGMA. Send editorial submissions to:
1330 Braddock Pl., #501, Alexandria, VA 22314
Phone: 703.709.7000; Email: sigma@sigma.org

IGM
INDEPENDENT GASOLINE MARKETING

FEDERATED INSURANCE
It's Our Business to Protect Yours®

Help Your Employees Make it Home Safe Today

Federated DriveSAFE℠ Telematics helps your employees improve their daily driving habits and return home safe at the end of the day.

AN ASSOCIATION MEMBER BENEFIT FOR 119 YEARS
DIRECT, LOCAL MARKETING REPRESENTATIVES AUTO
PROPERTY AND CASUALTY SELF-INSURED RETENTION
POLICYHOLDER SURPLUS LIVE VOICE CUSTOMER SERVICE
MYSHIELD® TAILORED, INDUSTRY-SPECIFIC COVERAGE
BUSINESS SUCCESSION AND ESTATE PLANNING STABLE
FACE-TO-FACE RELATIONSHIPS FINANCIAL STRENGTH
MUTUAL COMPANY DIRECT CLAIMS REPRESENTATIVES
500+ EXCLUSIVE ASSOCIATION RECOMMENDATIONS
ESTATE PLANNING ATTORNEY NETWORK ANNUITIES

IT'S OUR BUSINESS TO PROTECT SIGMA MEMBERS

WE'RE BETTER TOGETHER LIFE AND DISABILITY INCOME
PRIVATE BONUS PLANS KEY PERSON COVERAGE
WORKERS COMPENSATION HIRING PRACTICES
FEDERATED DRIVESAFE℠ TELEMATICS SOLUTION
RISK MANAGEMENT RESOURCE CENTER
EMPLOYMENT RELATED PRACTICES LIABILITY
EMPLOYMENT LAW ATTORNEY NETWORK
BONDING EMPLOYEE SAFETY TRAINING
RISK MANAGEMENT ACADEMY
CLIENT CONTACT CENTER
FIELD RISK CONSULTANTS
CERTIFICATE CENTER
SURETY SPECIALISTS
MANAGED CARE
CYBER

Scan to learn more about **DriveSAFE TELEMATICS.**

The content of this publication is for general information purposes only. Consult with a qualified professional when you have detailed questions regarding any topic in this publication.

Commercial Insurance Property & Casualty | Life & Disability Income | Workers Compensation | Business Succession and Estate Planning | Bonding

Federated Mutual Insurance Company and its subsidiaries** | federatedinsurance.com

23.01 Ed. 12/22 **View A.M. Best Rating Guide information at www.ambest.com. **Not licensed in all states.* © 2022 Federated Mutual Insurance Company

MATRIX
CAPITAL MARKETS GROUP

Thank you to our 2023 clients

The Convenience Retail and Branded Dealer Wholesale Businesses of Santmyer Companies, Inc. have been acquired by Subsidiaries of Croton Holdings Co.	Select Assets of Coborn's, Inc. have been acquired by Holiday Stationstores, LLC	Monfort Companies' Convenience Retail Stores in WI & MN have been acquired by Azan Petro, LLC	The Assets of Springer Eubank Company, Inc. and its Affiliates have been acquired by an affiliate of Petroleum Marketing Group, Inc.	Select Heating Oil and Commercial Fuels Distribution Assets of Superior Plus Energy Services have been acquired by Mirabito Holdings, Inc.
Mystic Oil Company, Inc. and Its Affiliates have been acquired by Petroleum Marketing Group, Inc.	H.A. Mapes, Inc. and Affiliates have been acquired by Nouria	The Retail Motor Fuels, Convenience Retail and Fleet Fueling Businesses of WTG Fuels Holdings, LLC have been acquired by GPM Investments, LLC, a subsidiary of ARKO Corp. (Nasdaq: ARKO)	A Leading Fuels Distributor, Petroleum Marketer & Convenience Retail Chain in the Southeast has acquired A Convenience Retail Chain from An Undisclosed Seller	The Company Operated Retail Assets of TBC d/b/a NTB / Tire Kingdom have been acquired by Mavis Tire Express Services Corp.
The Convenience Retail Stores of Bowett Petroleum d/b/a Cruisers have been acquired by United	Bowett Petroleum has acquired The Wholesale Fuels Business of United	Santmyer Companies, Inc. has acquired Cole Distributing, Inc.	The Assets of L/I Thrift Food Marts, Inc. d/b/a Short Stop have been acquired by an affiliate of Petroleum Marketing Group, Inc.	Alpena Oil Co. Louie's Fresh Market has been acquired by Blarney Castle Oil Co.

It has been a privilege to work together this past year, and we look forward to many more successes in the years to come.

Downstream Energy & Convenience Retail Group

- **Spencer P. Cavalier, CFA, ASA,** Co-Head • spcavalier@matrixcmg.com • 667.217.3320
- **Cedric C. Fortemps, CFA,** Co-Head • cfortemps@matrixcmg.com • 804.591.2039
- **M. Vance Saunders, CPA**, Managing Director • vsaunders@matrixcmg.com • 804.591.2037
- **Sean P. Dooley, CFA, ASA**, Managing Director • sdooley@matrixcmg.com • 667.217.3322

Mergers & Acquisitions • Capital Raising • Valuations • Strategic Advisory
www.matrixcmg.com | Richmond • Baltimore • New York

Securities offered by MCMG Capital Advisors, Inc., an affiliate of Matrix Capital Markets Group, Inc., Member FINRA & SIPC

SIGMA Strategic Partner