

Greater Houston Port Bureau

Port Bureau News

October 2021

Move Beyond Routine
OPA90 Compliance



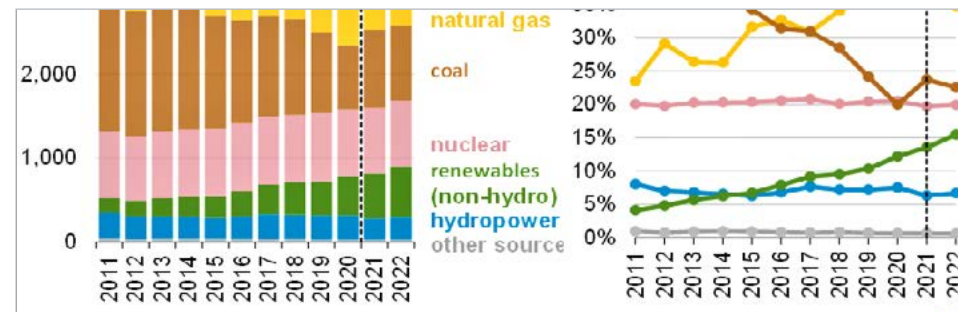
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In developing pre-plans (response, incident, and emergency) or tactical plans, related to compliance, the focus can be on a particular regulation, system failure, contagion outbreak, or a natural disaster. What are the five questions you should consider? Read more on page 6.



The October Short-Term Energy Outlook remains subject to heightened levels of uncertainty related to the ongoing recovery from the COVID-19 pandemic. U.S. economic activity continues to rise after reaching multiyear lows in the second quarter of 2020. Read more on page 12.

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The Promise of the Future

The Port Bureau is in overdrive right now as we prepare for our Annual Maritime Dinner on November 5. As we are also hosting the Captain's Cup Golf tournament that week on November 1, it's put moving fast at maximum efficiency on everyone's dashboard.

Getting to the highest speed possible is a familiar goal to me. I remember when a fast car was the key to all my teenage dreams. The rare times I was allowed to get behind the wheel of our family car filled me with the sensation of being able to accomplish anything – and the faster I could go, the better I liked it. While I cared about peak power, I did not really care about peak efficiency.

We only had one family car, a Dodge Dart — not exactly a muscle car, but that didn't decrease my enthusiasm for driving it. While teaching me to drive in the Kmart parking lot, my dad used to say, "You have to slow down if you want to ever get where you are going." I didn't listen. Later in life, he would jokingly tell my friends, "Bill drove the car 5 times in high school, 2 of which ended in accidents. It cost me \$100 every time he looked at the car."

While I maintain his comments are debatable, my real point is what a car meant to me as a young person. Horsepower and torque were my personal measures of getting to any vehicle's true potential, and the quicker I drove the better. My older self now understands that unrestrained speed may not be the best method of getting to where I want to go. I'm now a believer of the Kmart parking lot advice that keeping my eye on what might be coming down the highway was just as essential to a successful road trip as to how fast I crank the engine. And since I started paying the gas bill, I have been a keen believer in efficiency.

This year's Annual Dinner honoree, Jim Teague, is always quick to credit Enterprise Products founder, Dan Duncan, with instilling

some exceptional business lessons in him. He notes how Dan was visionary and didn't focus on just what "a deal" could bring to the company in the moment. He looked for how it would benefit the organization in the future, and he was known for his intent to see that a deal benefited both parties. Given that Dan started Enterprise with \$10,000 and a trailer truck, you could say he, too, evaluated potential on more than how fast he could go; he looked a little further down the road to get maximum performance from his plans.

Getting in the driver's seat still brings a sense of joy. Accelerating on an open road in good weather brings a return of that freedom feeling and the promise of good things ahead. When I steer my way to our Annual Dinner, I'll be bringing that spirit with me. I believe many others will be, too, as we gather in fellowship for a wonderful evening that's been two years in the making.

The cocktail hour is a great time for visiting and sharing business expectations for the future. Heck, if you even want to talk cars, I'm in. If you need a ticket (dinner—not traffic), a few are available. I look forward to seeing you there!

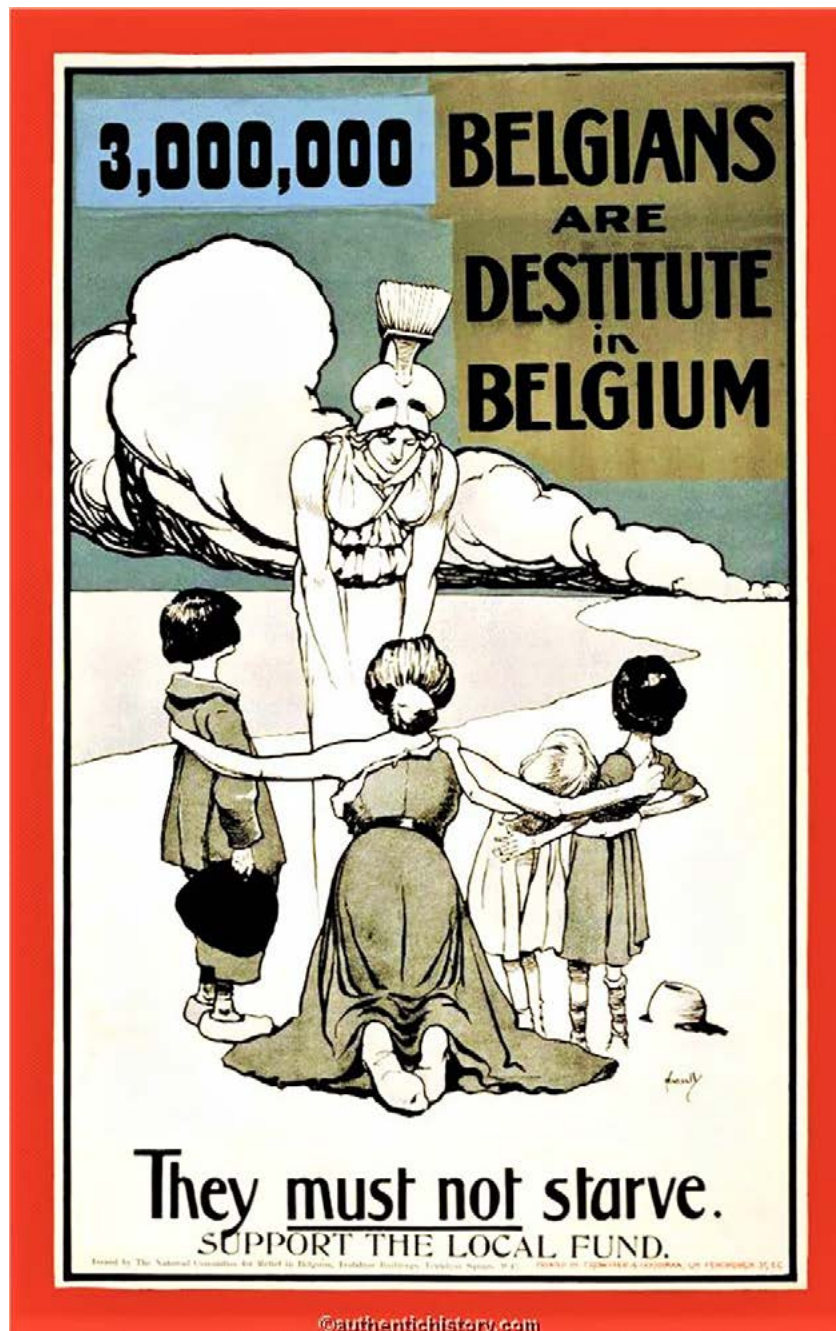
Bill



CAPT Bill Diehl
USCG (Ret.), P.E.
 GHPB President

Port Watch

Ami de la Nation Belge



In August 1914, Germany’s execution of the Schlieffen Plan brought Belgium into the crosshairs of World War I. Worse yet, the subsequent stalemate that unfolded while trenches were being dug from the North Sea to Alsace precipitated the greatest humanitarian crisis in history as several million Belgians faced starvation. Neither side was motivated or capable of feeding up to 9 million civilians each day. The English would not lift their blockade for fear of supplies falling into the hands of the country that invaded Belgium; whereas the Germans were convinced Belgium could readily import food as it had done before the war. Yet, despite this stubborn impasse, there was one individual that possessed the organizational genius and business acumen to avert mass starvation – Herbert Hoover.

As a private citizen, Herbert Hoover created the Commission for Relief in Belgium (CRB) and its concomitant network of 40,000 volunteers to manage the Herculean task of purchasing, transporting and distributing over 5 million tons of food. Hoover cajoled the warring parties to grant him diplomatic immunity to orchestrate this unprecedented undertaking; established price controls; requisitioned a fleet of ships to transport aid into neutral ports; and raised a billion dollars to ensure the CRB could sustain its efforts throughout the war. This “Napoleon of Mercy” tirelessly devoted his efforts to ensure the food always arrived where it was needed and was never diverted to German troops.

Today, the challenges faced by the supply-chain continuum are certainly not linked to a world at war but - a system that been derailed by labor shortages - has frustrated many a consumer. Fortunately, in Texas, those frustrations are not as severe as in other parts of the country. Admittedly, September was not as solid as prior years. The overall arrival count for the state dropped for the first time in five months. Yet, there were a few ports that posted monthly arrival gains.

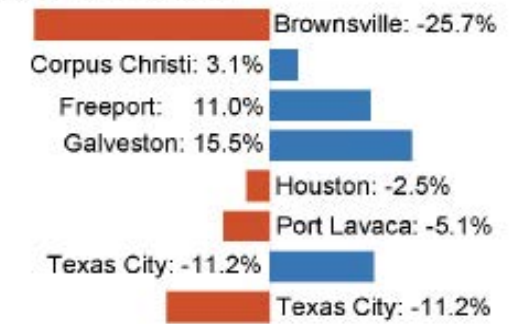
Thanks to the cruise ship industry, Galveston was blessed with its best month of 2021 and eased into the top spot with the highest year-over-year percentage gain of 15.5%. September’s monthly gain was Galveston’s biggest increase for the year at over 13%. The port of Sabine also yielded its highest arrival tally for the year and is only behind Galveston with respect to outdistancing 2020’s numbers which currently stands at 11.3%. LNG vessels, chemical tankers, tankers and even car carriers have contributed to Sabine’s arrival bounty of 2021.

The two remaining ports that are chalking up higher arrival numbers this year are Freeport and Corpus Christi. Both ports are benefiting from expanded capacity with the construction of new terminals. Albeit, both ports posted modest declines in September, but their respective wanes of 2% and 4% did not make much of a dent in the year-to-date gains which currently stand at 11% and 3% respectively.

Texas City’s September lagged that of August by nearly 3% and the port trails last year by over 11%. The port may gain some additional traction in the final quarter of the year if the cost of a barrel of oil continues to \$100. Brownsville, on the other hand, has seen 26% fewer vessels in 2021. Chaos at the border coupled with unprecedented trucking congestion may be stymieing the movement of goods to and from this port. Then again, the lack of activity in the nearby shale gas plays and France’s decision to boycott fracked LNG has been a bit of a setback for Brownsville’s port.

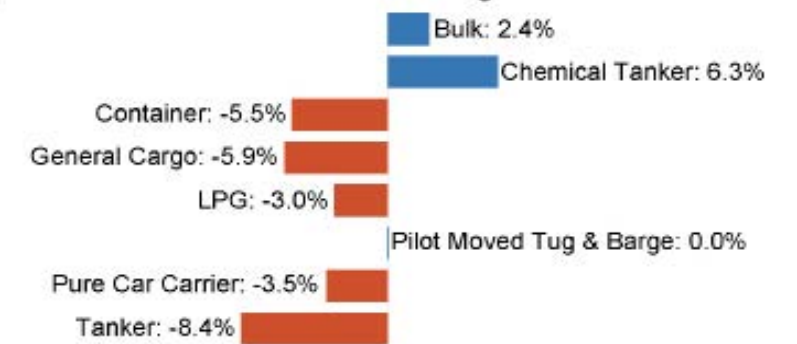
Houston has also been adversely impacted by the dearth of drilling in the Texas shale gas regions. The port posted its second consecutive decline in arrival numbers due to an unsteady export market on the international trade front. Even containers – which are outpacing 2020’s year-over-year TEU count by 16% - were off 12% over the last month. Of note is the fact that full TEUs slated for export are down 15% for the year; however, the full import TEU numbers are a torrid 30% ahead of last year’s count.

Deepdraft Vessel Arrivals by Port September 2021 Year-to-Date Percent Change



Source: Greater Houston Port Bureau Marine Exchange of Texas

Houston Deepdraft Arrivals by Type September 2021 Year-to-Date Percent Change



Source: Greater Houston Port Bureau Marine Exchange of Texas

Thus far, the brightest spot with respect to type of vessels plying Houston’s ship channel is chemicals. This export play gained 3% over the last month and continues to surpass 2020’s arrival stats by over 6%. Bulkers are also in the black for the year by over 2% after chalking up a 4% monthly uptick. Undoubtedly, poor harvests on the other side of the globe, along with a higher demand for bulk commodities bound for international manufacturers, has fueled this rise.

The remainder of Houston’s vessel categories languished in the final month of the third quarter and also lagged last year’s arrival figures. It is difficult to opine on whether or not a more expensive barrel of oil will supercharge the fourth quarter trade numbers given that labor remains tight and the necessary materials to extract and transport crude to market are becoming more expensive with each passing month. Trade and the markets that rely upon that trade yearn for predictability – something that is in short supply these days.

What is predictable is that empty shelves and empty stomachs beget crisis. Herbert

Hoover understood that better than anyone as he coordinated the most far-reaching private humanitarian effort to date. By the time the war approached its end, Hoover had been appointed a government official and was therefore precluded from accepting a title of nobility from King Albert. Nevertheless, the king of Belgium directed that Herbert Hoover be titled a Friend of the Belgian Nation and Herbert Hoover would be the sole recipient of such a distinction. As Ambassador Page noted when the Guns of August were finally silenced on November 11, 1918, “But for Hoover, Belgium would be starved...He’s a simple, modest, energetic little man who began his career in California and will end it in Heaven; and he doesn’t want anybody’s thanks.”



Tom Marian
Buffalo Marine Service
buffalomarine.com

Move Beyond Routine OPA90 Compliance

Prepare Response Plans, Develop Best Practices, and Institute Training to Minimize Risks



In my consulting role with Witt O'Brien's, I assist companies in developing pre-plans (response, incident, and emergency) related to compliance. These pre-plans can focus on a particular regulation, system failure, contagion outbreak, or a natural disaster. With that said, and in light of recent national events, the focus of this article will be on what is commonly referred to as Tactical Plans, pertaining to the Oil Pollution Act of 1990 (OPA90) regulations for the U.S. Environmental Protection Agency (EPA), U.S. Coast Guard (USCG), the Department of Transportation's (DOT) Pipeline and Hazardous Material Safety Administration (PHMSA), and Bureau of Safety and Environmental Enforcement (BSEE).

The five questions listed below are for your consideration. While reading them, think about them in relation to the past several years and you will likely take note of the tremendous changes in many aspects of the industry.

- Do you have the same workforce you did last year?
- Do you have the same consultants supporting you?
- Do you have the same amount of money in your budget to manage your programs?
- Do you have the same policies and procedures as you did last year?
- When is the last time you honestly reviewed your plans top-down?

What is Required?

What is required, and what should be completed are two different things. First, let's summarize what each agency states with regards to "pre-planning" or "Tactical Plans" under their portion of OPA90.

EPA – 40 CFR Part §112.20 - Facility response plans: <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-112/subpart-D#112.20>

A summary of what the EPA requires of regulated operators to develop is as follows:

- An Emergency Response Action Plan, which serves as both a planning and action document;
- Facility information including its name, type, location, owner, and operator information;
- Emergency notification, equipment, personnel, and evacuation information;
- Identification of potential spill hazards and analysis of previous spills;

- Discussion of the small, medium, and worst-case discharge scenarios and response actions;
- Description of discharge detection procedures and equipment;
- Detailed implementation plan for spill response, containment, and disposal;
- Description and records of self-inspections, drills, and exercises, and response training;
- Diagrams of the facility site plan, drainage, and evacuation plan; and
- Security (e.g., fences, lighting, alarms, guards, emergency cut-off valves, and locks).

USCG – 33 CFR Part §154 - Subpart F—Response Plans for Oil Facilities: <https://www.ecfr.gov/current/title-33/chapter-I/subchapter-O/part-154#sp33.2.154.f>

Under §154.1035 - Specific requirements for facilities that could reasonably be expected to cause significant and substantial harm to the environment, the USCG goes into detail on the types of minimum pre-planning scenarios they require to be developed along with the required pre-planning considerations: staging areas, environmental impacts, personnel considerations, etc.

PHMSA – 49 CFR Part §194 – Response Plans for Onshore Oil Pipelines: <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-D/part-194>

Under §194.107 - General response plan requirements, PHMSA discusses the minimum planning requirements a pipeline operator should develop in advance of a release. Discussions include disposal of waste, compliance with the National Contingency Plan (NCP) and Area Contingency Plans (ACP), resource and personnel allocations, environmental considerations, etc.

BSEE – 30 CFR Part 254 – Oil Spill Response Requirements for Facilities Located Seward of the Coastline: <https://www.ecfr.gov/current/title-30/chapter-II/subchapter-B/part-254>

Under §254.5 General response plan requirements, BSEE states one's response plan must provide for response to an oil spill from the facility. One must immediately carry out the provisions of the plan whenever there is a release of oil from the facility. One must also carry out the training,

equipment testing, and periodic drills described in the plan, and these measures must be sufficient to ensure the safety of the facility and to mitigate or prevent a discharge or a substantial threat of a discharge.

How are Tactical Plans Addressed by Industry?

Some companies accomplish these requirements exceedingly well. However, over my two decades writing such plans, the companies that conduct pre-planning efforts for these programs are often the exception rather than the norm. Most often, companies that comply with the rules, generally speaking, but just that, the agency checklist passed. Remember what the goal of these plans are – they’re not just fulfilling a government requirement – moreover, they are used to prepare for and react to an actual incident.

Too often I see plans that have been photocopied from previous years, maps thrown in with the intent to use as guides, long-winded discussions on how you would respond, or pages and pages on resource capabilities, personnel on-hand, and contractors. Some of this information is worthwhile and does address the requirements of Tactical plans, however, that’s all it really is good for – checking the box. If we step back once we’ve gotten through the rush to get a compliant plan completed and approved, we must ask ourselves, “Can we really use this document in an actual incident?”. The answer often is a resounding “no”.

What is the Correct Approach?

While I don’t have a crystal ball and I realize the information below is necessarily not all-inclusive, it will allow you to get on track in the correct direction.

To begin, you should first know the extent of the pre-planning area, or areas if you’re talking about pipelines. To do this, there are two common methods used – one for spills based on land and water trajectories, while the second method is used purely for water trajectories. When land and water, typically you will use the EPA’s Chezy-Manning formula, details of which can be found in this EPA rule. If purely water, typically you would use the National Oceanic and Atmospheric Administration’s (NOAA) Automated

Data Inquiry for Oil Spills (ADIOS) tool. These methodologies will give you a pretty realistic planning area based on defined parameters.

Once your spill trajectory area has been determined, review the items below:

- Current Environmental Sensitivity Maps (ESMs) and/or other publicly available documents for known areas of concern,
- Current satellite imagery, Google Earth, to determine protection areas, review/confirm surrounding areas, and formulate tactics,
- Applicable ACPs, and
- NCP

With this data in hand, it’s now time to start developing your pre-plans, from this point forward referred to as Tactical Plans. Most in the industry generally consolidate this information onto 11x17 pages, so they are quick guides that can be grabbed in a rush and easily interpreted by responders.

What Data Points Should One Consider?

- Facility Name/Pipeline Name
- Image Description/Name
- Water Body
- Plan Name
- Segment Description
- Response Objectives
- Safety Notes
- Environmental Sensitivities
- Oil Spill Removal Organization (OSRO)
- Equipment/Personnel
 - Description
 - Quantity
- Decontamination
- Tactical Considerations
- Location Type
- Potential Source
- Collection Point

- Water Intake
- Marina
- Dock
- Boat Ramp (Trailer)
- Boat Launch (Hand)
- Physical Address
- Phone Number/Radio Freq.
- Lat./Long.
- Other Location Information
- Directions

Again, there is no wrong or right way to accomplish these plans, however, in today’s world, organizations can’t afford the risk of not responding quickly and effectively. You must have an understanding of your Area of Responsibility (AOR) to quickly respond, protect, maintain safety, as well as clean up the affected area. Developing these Tactical Plans in advance with profound thought and consideration put into them will serve to add another tool in your organization’s emergency response toolbox.

The last step to developing any form of an incident management plan is to train your staff regularly. One of the most important concepts to remember is to train as if it were a real incident. When chaos ensues, which typically is the case during a major incident, it is muscle memory that will serve your company and its staff best. Building this muscle memory isn’t done overnight, so companies need to train regularly.

At a Minimum Training Should Consist of:

- Review of existing plans;
- Collaboration with external resources (private/public) – it’s much easier to respond during an incident when you have a personal relationship with them;
- Ensure personnel has the proper regulatory training for their roles, e.g., HAZWOPER, Incident Management System (ICS), applicable industry-related training;
- Realistic functional exercise that changes from year to year to keep skillsets honed; and
- After-action reviews – best to find out what doesn’t work during peacetime rather than the media and government are at your front door.



John Carroll
Associate Managing Director –
Compliance Services
Witt O'Brien



BARGING AHEAD
ever so politely.

Buffalo Marine Service, Inc. www.BuffaloMarine.com



Greater Houston Port Bureau 13th Annual Captain's Cup

November 1, 2021 | Sugar Creek Country Club

Registration open for Premium Sponsors!
golf-info@txgulf.org | (713) 678-4300

Hosted at the members-only Sugar Creek Country Club, the Captain's Cup is the premier golf tournament for executives in the greater Houston port region.

Premium Event Sponsors

Dinner, Lunch, Dinner Bar, Beverage Cart, Raffle, Registration Sponsors

- Premium banner or poster logo signage near event
- Premium logo recognition on digital and printed event marketing materials
- Recognition during welcome remarks

Premium Course Sponsors

Closest to Pin, Longest Drive, Hole-in-One, Hospitality Tent, Target Practice Sponsors

- Premium feather flag logo signage at green
- Premium logo recognition on digital and printed event marketing materials
- Option to host marketing tent at green (*giveaways, food, beverage, and tent not included*)
- Recognition during welcome remarks

Pre-event Sponsors

Putting Green, Practice Range Sponsors

- Logo signage at putting green or practice range
- Logo recognition on digital and printed event marketing materials

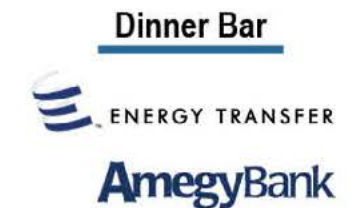
Note: Due to the ongoing COVID-19 situation, tournament details may change without notice. While every measure will be taken to ensure the comfort and safety of participants, players may be required to sign a waiver to participate.



Greater Houston Port Bureau 13th Annual Captain's Cup

November 1, 2021 | Sugar Creek Country Club

Thank you to our 2021 sponsors!



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Vopak
Winstead

Team + Hole Sponsor

- One 4-person team, green fees, tournament entry, drinks on the course, breakfast, lunch, and dinner with open bar. *Note: Club rentals and items purchased from the pro shop are not included.*
- \$100+ value gift per player
- Hole sponsorship

Hole Sponsors

- Logo signage at one hole
- Company name recognition on digital and printed event marketing materials

Schedule

9 am.....Registration & Breakfast
10 am.....Shot Gun Start
11 am - 2 pm.....Lunch on Course
3 pm.....Dinner & Awards
Schedule tentative and subject to change.

Location

Sugar Creek Country Club
420 Sugar Creek Blvd.
Sugar Land, TX 77478

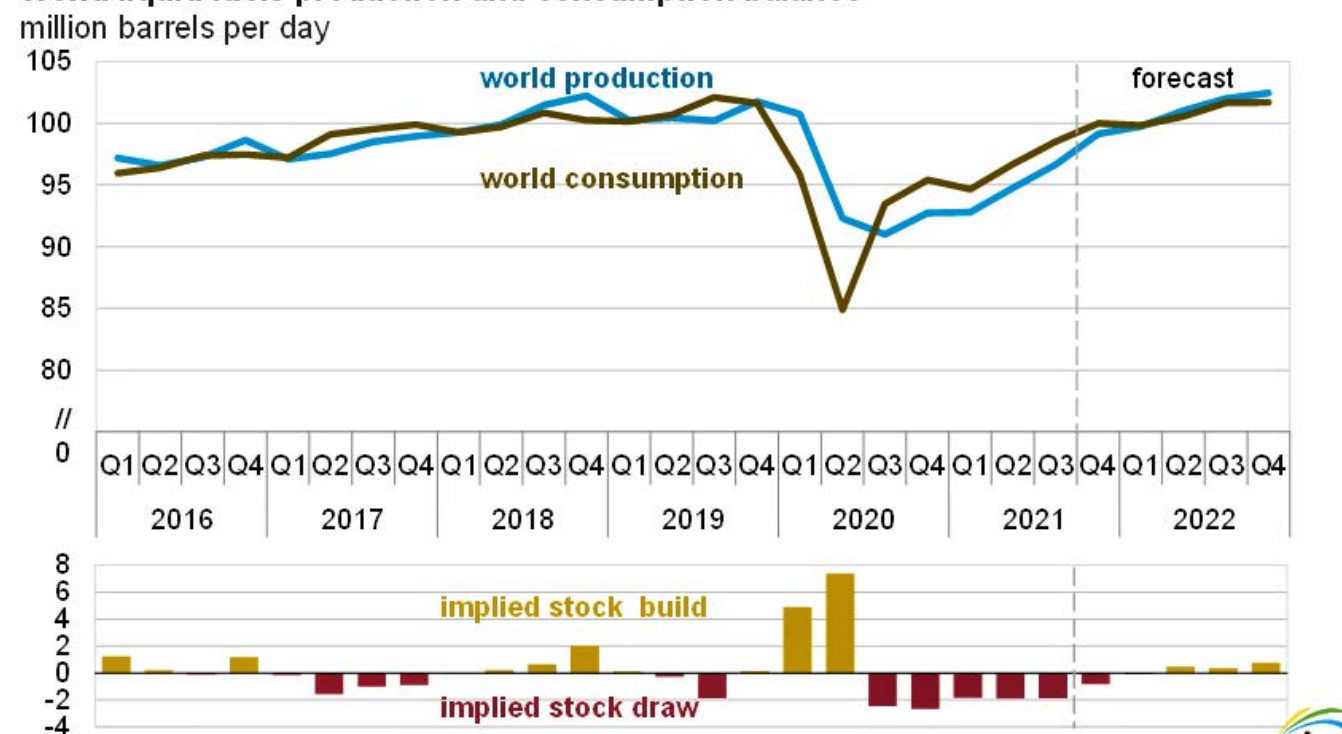
October Short-Term Energy Outlook

October Forecast Highlights

The October Short-Term Energy Outlook (STEO) remains subject to heightened levels of uncertainty related to the ongoing recovery from the COVID-19 pandemic. U.S. economic activity continues to rise after reaching multiyear lows in the second quarter of 2020 (2Q20). U.S. gross domestic product (GDP) declined by 3.4% in 2020 from 2019 levels. This STEO assumes U.S. GDP will grow by 5.7% in 2021 and by 4.5% in 2022. The U.S. macroeconomic assumptions in this outlook are based on forecasts by IHS Markit. Their forecast assumes continuing economic growth and increasing mobility. Any developments that would cause deviations from these assumptions would likely cause energy consumption and prices to deviate from their forecast.

in December. EIA forecasts 2021 production will average 11.0 million b/d, increasing to 11.7 million b/d in 2022 as tight oil production rises in the United States. Growth will come as a result of operators increasing rig counts, which EIA expects will offset production decline rates.

World liquid fuels production and consumption balance



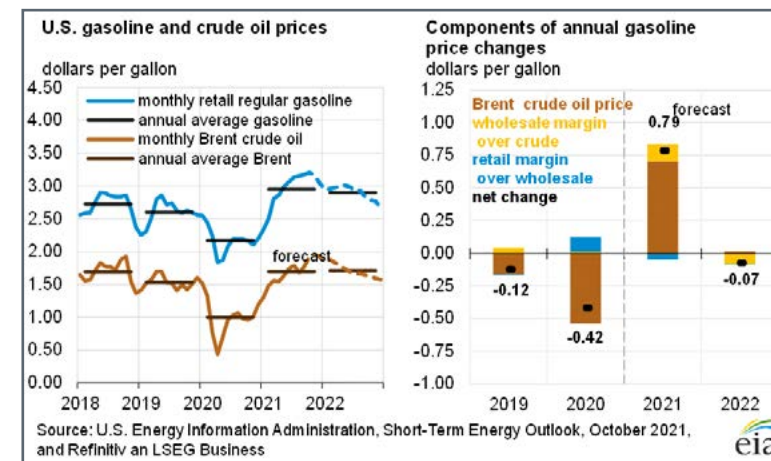
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2021



Winter Fuels Outlook

The Energy Information Administration (“EIA”) forecasts that average U.S. household expenditures for all major home heating fuels will increase significantly this winter primarily because of higher expected fuel costs as well as more consumption of energy due to a colder winter. Average increases vary by fuel, region, and weather assumptions. Compared with last winter, EIA forecasts propane expenditures will rise by 54%, heating oil by 43%, natural gas by 30%, and electricity by 6%. EIA expects space heating demand to generally be higher this winter based on forecasts from the National Oceanic and Atmospheric Administration (NOAA) that U.S. average heating degree days will be 3% higher than last winter (Winter Fuels Outlook). Altering their assumptions for a 10% colder-than-expected winter significantly increases forecast expenditures, while a 10% warmer-than-expected winter still results in increased expenditures, because of price increases.

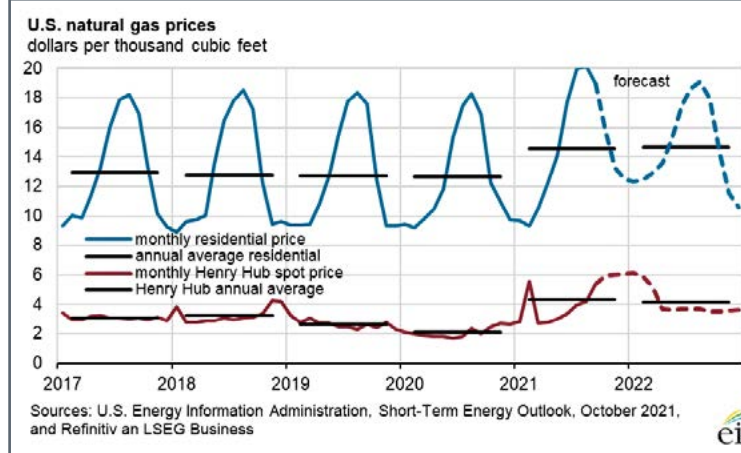
Global Liquid Fuels



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2021, and Refinitiv an LSEG Business

- Brent crude oil spot prices averaged \$74 per barrel (b) in September, up \$4/b from August and up \$34/b from September 2020. Brent spot prices have risen from their September average to more than \$80/b in early October. Oil prices have increased over the past year as result of steady draws on global oil inventories, which averaged 1.9 million barrels per day (b/d) during the first three quarters of 2021. In addition to sustained inventory draws, prices increased after the October 4 announcement by OPEC+ that the group would keep current production targets unchanged.
- EIA expects Brent prices will remain near current levels for the remainder of 2021, averaging \$81/b during the fourth quarter of 2021, which is \$10/b higher than their previous forecast. The higher forecast reflects their expectation that global oil inventories will fall at a faster rate than EIA had previously expected owing largely to lower global oil supply in late 2021 across a range of producers. In 2022, EIA expects that growth in production from OPEC+, U.S. tight oil, and other non-OPEC countries will outpace slowing growth in global oil consumption and contribute to Brent prices declining from current levels to an annual average of \$72/b.
- U.S. regular gasoline retail prices averaged \$3.18 per gallon (gal) in September, up 2 cents/gal from August and almost \$1/gal higher than in September 2020. Recent gasoline price increases reflect increasing crude oil prices outweighing falling gasoline wholesale margins. EIA forecasts that retail gasoline prices will average \$3.21/gal in October before falling to \$3.05/gal in December.
- Total U.S. crude oil production averaged 11.3 million b/d in July—the most recent monthly historical data point. EIA estimates that domestic production fell to 10.6 million b/d in September because of disruptions from Hurricane Ida. EIA forecasts production will be 11.0 million b/d in October and rise to 11.3 million b/d

Natural Gas



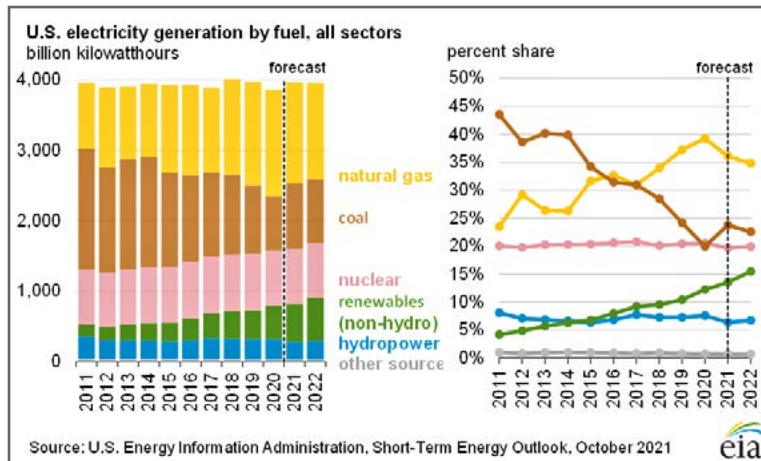
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2021, and Refinitiv an LSEG Business

- In September, the natural gas spot price at Henry Hub averaged \$5.16 per million British thermal units (MMBtu), which was up from the August average of \$4.07/MMBtu and up from an average of \$3.25/MMBtu in the first half of 2021. The rising prices in recent months reflect U.S. natural gas inventory levels that are below the five-year average and continuing demand for natural gas for power generation use at relatively high prices.
- EIA expects the Henry Hub spot price will average \$5.80/MMBtu in fourth-quarter 2021, which is \$1.80/MMBtu higher than EIA forecasts in the September STEO. In the current forecast, Henry Hub prices reach a monthly average peak of \$5.90/MMBtu in January and generally decline through 2022, averaging \$4.01/MMBtu for the year amid rising U.S. natural gas production and slowing growth in LNG exports. EIA raised their Henry Hub price forecast through the end of 2022 compared with last month. The increase reflects a higher starting point for their price forecast that incorporates recent developments in U.S. and global natural gas markets. EIA forecasts that U.S. inventory draws will be slightly more than the five-year average this winter, and EIA expects that factor, along with rising U.S. natural gas exports and relatively flat production through January will keep U.S. natural gas prices near recent levels before downward pressures emerge. Given low natural gas inventories in both U.S. and European natural gas storage facilities and uncertainty around seasonal demand, EIA expects natural gas prices to remain volatile over the coming months, with winter temperatures being a key driver of demand and prices.
- EIA estimates that U.S. LNG exports averaged 9.3 billion cubic feet per day (Bcf/d) in September 2021, down 4% from August. Despite the recent monthly decline, these were the most U.S. LNG exports for September since the United States began exporting LNG from the Lower 48 states in February 2016. Even though September exports were a record for the month, they were limited by weather conditions, which led to the suspension of piloting services for several days at Sabine Pass, Cameron, and Corpus Christi. EIA expects that LNG exports will average 9.1 Bcf/d in October and then increase in the coming months. Cove Point LNG terminal is scheduled to complete its annual maintenance by mid-October and resume exports this month. Through this winter, LNG exports in the forecast average 10.7 Bcf/d as global natural

gas demand remains high and several new LNG export trains—the sixth train at Sabine Pass LNG and the first trains at the new LNG export facility Calcasieu Pass LNG—enter service.

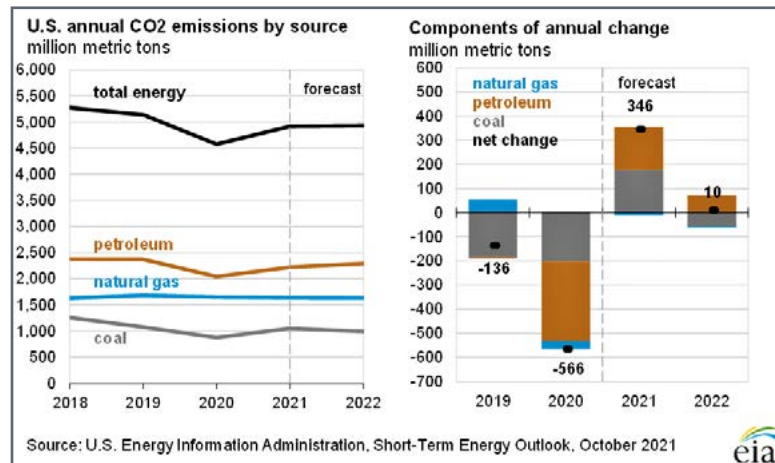
- EIA estimates that U.S. natural gas inventories ended September 2021 at about 3.3 trillion cubic feet (Tcf), 5% less than the five-year (2016–20) average for this time of year. Injections into storage this summer have been below the previous five-year average, largely as a result of more electricity consumption in June due to hot weather, and increased exports even as domestic natural gas production has remained flat. EIA forecasts that inventories will end the 2021 injection season (at the end of October) at almost 3.6 Tcf, which would be 5% less than the previous five-year average. EIA expects natural gas inventories to fall by 2.1 Tcf this winter, ending March at less than 1.5 Tcf, which would be 12% less than the 2017–21 average for that time of year.
- EIA estimates dry natural gas production averaged 93.3 Bcf/d in the United States during the third quarter of 2021—up from 91.6 Bcf/d in the first half of 2021. Production in the forecast rises to an average of 94.0 Bcf/d during the winter, and averages 96.4 Bcf/d during 2022, driven by natural gas and crude oil prices, which EIA expects to remain at levels that will support enough drilling to sustain production growth.

Electricity, Coal, Renewables, and Emissions



generation, which is likely the result of constraints on coal supply and low coal stocks, is contributing to upward pressure on natural gas prices. To reflect the lower price responsiveness of coal-fired electricity generation, EIA has lowered their forecast for U.S. coal generation for the fourth quarter of 2021 and the first half of 2022 by an average of 7 billion kWh (9%) each month, and EIA has raised their forecast for natural gas generation 5 billion kWh (5%) each month.

- EIA forecasts that planned additions to U.S. wind and solar capacity in 2021 and 2022 will increase electricity generation from those sources. EIA estimates that the U.S. electric power sector added 14.6 gigawatts (GW) of new wind capacity in 2020. EIA expects 17.1 GW of new wind capacity will come online in 2021 and 6.5 GW in 2022. Utility-scale solar capacity rose by an estimated 10.5 GW in 2020. Their forecast for added utility-scale solar capacity is 16.0 GW for 2021 and 18.3 GW for 2022. EIA expects significant solar capacity additions in Texas during the forecast period. In addition, EIA projects that after increasing by 4.5 GW in 2020, small-scale solar capacity (systems less than 1 megawatt) will grow 5.8 GW and 7.8 GW in 2021 and 2022, respectively.
- Coal production in their forecast totals 588 million short tons (MMst) in 2021, 53 MMst more than in 2020. EIA expects demand for coal from the electric power sector to increase by 84 MMst in 2021. Production growth is unlikely to match the increases in demand in the near term due to many coal mines operating at a reduced capacity and limited available transportation. In 2022, EIA expects coal production to increase by 34 MMst to 622 MMst, as the production and transportation constraints experienced in 2021 ease. Secondary inventories of coal at electric utilities decreased in the first half of 2021, and EIA forecasts this trend will continue into the second half of 2021 and 2022.
- EIA estimates that U.S. energy-related carbon dioxide (CO₂) emissions decreased by 11% in 2020 as a result of less energy consumption related to reduced economic activity and responses to COVID-19. For 2021, EIA forecasts energy-related CO₂ emissions will increase about 8% from the 2020 level as economic activity increases and leads to rising energy use. EIA expects almost no change in energy-related CO₂ emissions in 2022. EIA forecasts that after declining by 19% in 2020, coal-related CO₂ emissions will rise by 20% in 2021 and then fall by 5% in 2022. Short-term changes in energy-related CO₂ can be affected by temperature. A recent STEO supplement examines these dynamics.



- EIA expects the share of electricity generation produced by natural gas in the United States will average 36% in 2021 and 35% in 2022, down from 39% in 2020. In 2021, their forecast share for natural gas as a generation fuel declines in response to their expectation of a higher delivered natural gas price for electricity generators, which EIA forecasts will average \$5.15/MMBtu compared with \$2.39/MMBtu in 2020. As a result of the higher expected natural gas prices, the forecast share of electricity generation from coal rises from 20% in 2020 to about 24% in 2021 and 23% in 2022. For renewable energy sources, new additions of solar and wind generating capacity are offset somewhat by reduced generation from hydropower this year, resulting in the forecast share of all renewables in U.S. electricity generation to average 20% in 2021, about the same as last year, before rising to 22% in 2022. The nuclear share of U.S. electricity generation declines from 21% in 2020 to 20% in 2021 and 2022.
- Electricity generation from coal-fired power plants has not increased as much in response to rising natural gas prices as it has in the past, or by as much as their models forecasted in recent STEOs. The lower price responsiveness of coal for electricity

The comprehensive report is available at www.eia.gov/outlooks/steo.

HONORING THE 2021 MARITIME LEADER OF THE YEAR

JIM TEAGUE

CO-CEO, ENTERPRISE PRODUCTS



EVENT INFORMATION

Date: Friday, November 5, 2021
Time: 5:30 p.m.
Venue: Bayou City Event Center,
Houston, Texas
Dress: Black-Tie Optional

ABOUT THE ANNUAL MARITIME DINNER

The Annual Maritime Dinner is one of the largest maritime formal business events in the U.S. with over 750 attendees, bringing together maritime, transportation, and industry professionals and their guests to recognize the Maritime Leader of the Year. Although we made the difficult decision to cancel the 2020 Annual Maritime Dinner, we would like to thank our 2021 sponsors and member companies for supporting advancement in the port community. The 92nd Annual Maritime Dinner will be held on November 5, 2021, honoring Mr. Jim Teague as the 2021 Maritime Leader of the Year.

For information or to reserve your table contact Tanya Scott at tscott@txgulf.org or (713) 678-4300.

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As of September 21, 2021

Port Bureau Updates

Decarbonization, Digital Technology Discussed as ABS Brings North American Maritime Leaders Together



Decarbonization, digital solutions and ABS' work with leading global technology partners to solve industry challenges were the subjects for discussion among industry leaders at the annual ABS North America Regional Committee Meeting.

"We are pioneering new strategies and technologies to support our clients and members through their decarbonization journey. Because the sustainability challenge is too big for any one company to meet on its own, we are leading industry collaboration with joint development projects with partners all over the world. Thanks to our deep roots in North America, our committee includes the diverse expertise of many knowledgeable stakeholders, which is a powerful resource to focus on these regulatory and technological challenges," said Christopher J. Wiernicki, ABS chairman, president and CEO.

ABS specialists presented the latest thinking on decarbonization strategies and key developments in the regulatory environment. Advances in ABS digital solutions focused around vessel risk and operational performance as well as digital class initiatives to support core class services were highlighted. The committee also heard about the growth in U.S. offshore wind activity and ABS' industry-leading support for the emerging sector.

Rear Admiral John W. Mauger provided an update on developments at the U.S. Coast Guard (USCG).

He said: "We really see three major challenges driving our business and affecting how we do our work. The first challenge is really a drive to get more capacity out of the maritime transportation system. In addition, there's really a desire to reduce the environmental footprint. And the only way that you can grow capacity while reducing the footprint is by making things much more complex in terms of increased automation, optimization of designs and operational modes. So, this is the triple challenge that is facing us and that we look forward to working with you all to address."

"The industry is moving at a fast pace with developments coming rapidly and change now constant. This committee, with its mix of deep sector experience and technical insight, is the ideal vehicle for working together to share experiences and develop solutions to these challenges," said Mark Ross, chairman of the ABS North America Regional Committee and president of Chevron Shipping Company.

ABS is the leading classification organization in North America, including Equatorial American countries, based on both existing tonnage and new construction orders. ABS provides class services for the U.S. Navy, USCG, U.S. Army, U.S. Maritime Administration, NOAA, National Science Foundation, Canadian Navy and Canadian Coast Guard.

Kokusai Cable Ship, MOL Sign MOU on Operation of Cable-Laying Ships



Kokusai Cable Ship Co., Ltd. ("KCS") and Mitsui O.S.K. Lines, Ltd. ("MOL") announced that on September 24, 2021, they concluded a memorandum of understanding (MOU) on collaborative operation of cable-laying ships to meet increasing demand for installation of power cables—a key element of supply chains in the globally expanding offshore wind farm business.

KCS was established in 1966 and the following year launched the *KDD Maru*, Japan's first submarine cable-laying ship. Over the ensuing half century, the company has been involved in the construction of some 70,000km of undersea cables, mainly in the Asia-Pacific region. It is a leading company in submarine cable-laying and maintenance, and oversees the maintenance of over 87,000km of cable. In 2019, KCS launched the *KDDI Cable Infinity*, Japan's first self-propelled power and telecommunication cable-laying ship.

MOL and its group company MOL Marine & Engineering Co., Ltd. (MOLMEC) have managed and operated a total of four (Fig.1) KCS-owned cable-laying ships including the *KDD Maru* for over 50 years. The MOL Group is the only Japanese ocean shipping company involved in the management and operation of cable-laying ships. Cable-laying ships adopt "Dynamic Positioning Systems" to lay submarine cables with safety and precision, and MOL and MOLMEC have accumulated technology and expertise to automatically maintain the ship position under various environmental and weather conditions. Their collective know-how and skilled personnel are expected to be used in a wide range of various offshore businesses, including the rapidly growing wind power generation field.

KCS is responsible for cable handling and laying operations, which require advanced technology, expertise, and knowledge, while MOL and MOLMEC are in charge of ship management and operation including supplying seafarers who have the advanced skills to operate the "Dynamic Positioning Systems" indispensable for cable-laying ships. As they fulfill these roles, both companies will jointly research commercial opportunities in new submarine cable-laying demand, mainly for offshore wind farm facilities, which are gaining wider application in Japan and throughout Asia.

Ship name	<i>Infinity</i>	<i>Ocean Link</i>	<i>Pacific Link</i>	<i>KDD Maru</i>
Exterior view				
Ship registry	Japan/Kitakyushu	Japan/Yokohama	Japan/Kitakyushu	Japan/Yokohama
Operation	Started in 2019	Started in 1992	1998~2019	1969~1997
LOA	113.1m	133.5m	109.0m	113.8m
Breadth	21.5m	19.6m	20.5m	15.4m
Gross tonnage	9,766 tons	9,510 tons	7,960 tons	4,257 tons
Speed	12 knots	15 knots	9 knots	16 knots
Accommodation	80 persons	85 persons	58 persons	76 persons
DPS	DP-2	DP	DP-2	-
Coverage	Telecommunication/ Electric power	Telecommunication cable	Telecommunication cable	Telecommunication cable

Dow to Build World's First Net-Zero Carbon Emissions Ethylene and Derivatives Complex



Dow has announced plans to build the world's first net-zero carbon emissions integrated ethylene cracker and derivatives site with respect to scope 1 and 2 carbon dioxide emissions. The project would more than triple Dow's ethylene and polyethylene capacity from its Fort Saskatchewan, Alberta site, while retrofitting the site's existing assets to net-zero carbon emissions. The organic, brownfield investment would significantly increase Dow's capacity of advantaged ethylene, polyethylene and derivatives manufactured across Alberta – all while maintaining Dow's enterprise-level commitment to keep capital expenditures at or below depreciation and amortization (D&A) levels. The company expects to allocate approximately \$1 billion of capex annually – or approximately 1/3 of its D&A levels – to decarbonize its global asset base in a phased, site-by-site approach.

Dow expects the new brownfield ethylene cracker to add approximately 1.8 million metric tons of capacity in a phased manner through 2030, and along with derivatives capacity and site retrofit investments, will enable the company to produce and supply approximately 3.2 million metric tons of certified low- to zero-carbon emissions polyethylene and ethylene derivatives for customers and joint venture partners around the globe.

The investment, which is subject to approval by Dow's board of directors and various regulatory agencies, would decarbonize approximately 20 percent of Dow's global ethylene capacity while growing polyethylene supply by about 15 percent and supporting approximately \$1 billion of EBITDA growth across the value chain by 2030. Further, Dow estimates that the project can be completed with an approximately 15 percent lower capital intensity than Dow's industry-leading Texas-9 cracker and derivative units.

"This investment builds on Dow's strong leadership position and allows us to meet the increasing needs of customers and brand owners seeking to lower the carbon footprint of their products," said Chairman and CEO Jim Fitterling. "Our advantaged position and disciplined approach to capital investment makes us well positioned to lead the industry in decarbonizing, growing and accelerating Dow's path toward carbon neutrality."

The project would build on Dow's previous success in reducing the carbon emissions intensity of its manufacturing fleet. Texas-9 in Freeport, Texas, Dow's most recently commissioned cracker, has delivered a greater than 15 percent return on invested capital since startup and currently operates at 65 percent lower conversion cost and up to 60 percent lower carbon dioxide emissions intensity than the average cracker in Dow's fleet as well as 20 percent lower capital cost versus the industry. The asset leverages best-in-class technology, including a highly efficient furnace design with optimized integration with other facilities on site, that significantly reduces energy consumption and carbon dioxide emissions.

The production process at Fort Saskatchewan will convert cracker off-gas into hydrogen as a clean fuel to be used in the production process, and carbon dioxide that would be captured onsite to be transported and stored by adjacent third-party CO2 infrastructure.

The products produced at the site will be used across the globe to help deliver low- to zero-carbon emissions solutions to meet customers' sustainability needs. Dow is focused on serving high growth markets that support human well-being, drive industrial efficiency, and enable the world's energy transition.

This investment aligns with Dow's broader targets to achieve carbon neutrality by 2050, eliminate plastic waste in the environment and increase its positive impacts on customers, business and society. It also supports Dow's commitment to reduce its net annual carbon emissions by an additional 15 percent, reducing net annual carbon emissions by approximately 30 percent by 2030 (since 2005). Today, Dow is among the top 20 global corporations for clean energy purchases, with more than 850 MW.

Join us at the Commerce Club November 11, 2021



Join us for a presentation by Roger Guenther, Executive Director, Port Houston, at the November Commerce Club luncheon. As executive director, he is responsible for overseeing the day-to-day operations of the port and for implementing policies and directives given by the Port Commission.

Network with 240+ professionals from maritime, transportation, energy companies, and organizations in the port region. We hope you'll join us!

Location
Houston Marriott South at Hobby Airport
9100 Gulf Freeway
Houston, TX 77017
11:15 AM - 1:00 PM

Information and RSVP
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Shell-Led Consortium Selected by DOE to Demonstrate Large-Scale Hydrogen Storage Feasibility



hydrogen.

Shell and the consortium partners—including McDermott's CB&I Storage Solutions, NASA's Kennedy Space Center, GenH2 and the University of Houston—have been selected by the U.S. Department of Energy's ("DOE") Hydrogen and Fuel Cell Technologies Office to demonstrate that a large-scale LH2 tank, with a capacity ranging from 20,000 to 100,000 cubic meters, is both feasible and cost competitive at import and export terminals. The DOE has awarded \$6 million to finance the project, and Shell and CB&I Storage Solutions will provide an additional \$3 million each, for a total project fund of \$12 million.

The consortium will collaborate to develop a technically innovative and economically viable concept design for the large scale LH2 storage tank. Additionally, the group will engineer and construct a scaled-down demonstration tank that will be tested to validate the feasibility of the design and the thermal model for commercial-scale design.

This project aims to advance the U.S. as a global energy leader in LH2-based international supply chain development and facilitate the commercialization of both blue and green hydrogen export opportunities. The public, private and academic endeavor will support the goals of the DOE H2@Scale and Hydrogen Shot initiatives, bringing stakeholders together in an effort to reduce the cost of clean hydrogen and advance its role in the energy transition.

Vitol Acquires Share in Liquind; Enters Gas-for-Transport Market



Vitol, the world's largest independent trader of energy, has acquired a majority share in Liquind GmbH, a leading supplier of gas-for-transport in North West Europe, for an undisclosed sum.

Liquind has a network of 15 outlets serving the trucking industry in Germany with LNG for transport, with the ambition to grow its network regionally and extend its offering to biogas for transport.

Russell Hardy, CEO Vitol, said: "We expect gas to become an important low emissions fuel for the trucking industry in Europe, with the market moving from LNG to bioLNG over time. We are delighted to be investing in one of Europe's leading gas-for-transport companies and working alongside management to extend Liquind's footprint and offering."

Christian Schneider and Gabor Beyer, joint-MDs Liquind said: "Partnering with Vitol will enable us to realise our growth and development ambitions. Vitol is a major participant in gas markets worldwide, has a proven understanding of downstream networks and experience in handling biogas. We very much look forward to this next phase in our company's future."

Vitol is committed to investing in the energy transition. It is a significant investor in renewables, with over \$1 billion capital committed to renewable power projects and has successfully invested in bio-digesters in the US. Investing in Liquind is aligned with Vitol's core strategy of investing in assets which complement the trading business. Vitol anticipates that demand for low emission fuels will increase as the European trucking industry seeks a practical and timely means of reducing its carbon footprint.

ExxonMobil to Build Its First Large-Scale Plastic Waste Advanced Recycling Facility in Baytown



ExxonMobil plans to build its first, large-scale plastic waste advanced recycling facility in Baytown, Texas, and is expected to start operations by year-end 2022.

By recycling plastic waste back into raw materials that can be used to make plastic and other valuable products, the technology could help address the challenge of plastic waste in the environment. A smaller, temporary facility, is already operational and producing commercial volumes of certified circular polymers that will be marketed by the end of this year to meet growing demand.

"We've proven our proprietary advanced recycling technology in Baytown, and we're scaling up operations to supply certified circular polymers by year-end," said Karen McKee, president of ExxonMobil Chemical Company. "Availability of reliable advanced recycling capacity will play an important role in helping address plastic waste in the environment, and we are evaluating wide-scale deployment in other locations around the world."

The new facility follows validation of ExxonMobil's initial trial of its proprietary process for converting plastic waste into raw materials. To date, the trial has successfully recycled more than 1,000 metric tons of plastic waste, the equivalent of 200 million grocery bags, and has demonstrated the capability of processing 50 metric tons per day.

Upon completion of the large-scale facility, the operation in Baytown will be among North America's largest plastic waste recycling facilities and will have an initial planned capacity to recycle 30,000 metric tons of plastic waste per year. Operational capacity could be expanded quickly if effective policy and regulations that recognize the lifecycle benefits of advanced recycling are implemented for residential and industrial plastic waste collection and sorting systems.

ExxonMobil is developing plans to build approximately 500,000 metric tons of advanced recycling capacity globally over the next five years. In Europe, the company is collaborating with Plastic Energy on an advanced recycling plant in Notre Dame de Gravenchon, France, which is expected to process 25,000 metric tons of plastic waste per year when it starts up in 2023, with the potential for further expansion to 33,000 metric tons of annual capacity.

The company is also assessing sites in the Netherlands, the U.S. Gulf Coast, Canada, and Singapore.

To meet customer demand for circular polymers, ExxonMobil has obtained certifications through the International Sustainability and Carbon Certification Plus (ISCC Plus) process for several of its facilities. ISCC Plus is widely recognized by industry as an effective system to certify products that result from advanced recycling using mass balance attribution of plastic waste.

To help address the need for increased collection and sorting of plastic waste, ExxonMobil formed a joint venture with Agilyx Corporation, Cyclyx International LLC, focused on developing innovative solutions for aggregating and pre-processing large volumes of plastic waste that can be converted into feedstocks for valuable products. Cyclyx will help supply ExxonMobil's advanced recycling projects, and will aim to do the same for other customers.

ExxonMobil is a founding member of the Alliance to End Plastic Waste, which is focused on accelerating investment in safe, scalable and economically viable solutions to help address the challenge of plastic waste in the environment through a portfolio of projects that has grown to more than 30 ongoing projects across several countries.



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Port of Houston Authority Awards the First Dredge Contract for Project 11



The Port Commission of the Port of Houston Authority met in a special meeting to consider the first dredge contract for Project 11, the Houston Ship Channel billion-dollar expansion and deepening program.

Great Lakes Dredge & Dock Company, LLC was awarded up to \$95,375,349 to dredge 11½-miles of the 52-mile channel, widening a major portion of the Galveston Bay reach from 530 to 700 feet. The work includes the construction of a new bird island and oyster mitigation.

Port Houston negotiated multiple options and selected the approach with the most reduction in overall NOx emissions, using more efficient equipment and providing for retrofitting emission-reduction technology. "It's a big day for Port Houston and a big day for the region," Port Houston Chairman Ric Campo emphasized after the vote.

During the meeting, commissioners, staff, and other interested parties acknowledged that Port Houston had successfully managed a highly complex effort, as it spearheaded consideration, communication, and collaboration, among stakeholders ranging from local communities to state and national interests, to continue its accelerated time frame.

Fifth Third Appoints Michele Mullins Climate Risk Officer



Fifth Third Bank, National Association, has announced the appointment of Michele Mullins as the company's first climate risk officer. The role expands Mullins' duties as director of enterprise risk governance and business support and reflects the bank's commitment to environmental sustainability leadership.

Fifth Third Chairman and CEO Greg Carmichael said, "With a proven track record of establishing appropriate procedures, testing for adherence to policies, identifying and monitoring key performance indicators and mitigating risk, Michele is well suited to lead Fifth Third's efforts to actively manage climate risk."

In nearly 20 years with Fifth Third, Mullins has served in a variety of management roles in Risk and in the Commercial line of business. She will retain her responsibilities in enterprise risk governance and business support. The new role gives Mullins responsibility for partnering across the enterprise to identify and gauge physical and transition risks related to climate change in order to assess and mitigate them effectively.

Her responsibilities include benchmarking with peer firms and ensuring Fifth Third remains aligned with industry trends, including the bank's efforts around publishing the TCFD (Task Force on Climate-Related Financial Disclosures) report. As director of Enterprise & Climate Risk Governance and business support, Mullins will continue to report to Bob Shaffer, executive vice president and chief risk officer.

Fifth Third aligns its work in environmental sustainability to the United Nations Sustainable Finance Goal No. 13 Climate Action. More information is available in Fifth Third's 2020 Environmental, Social and Governance Report.

Great Lakes Dredge & Dock Corporation Appoints Scott Kornblau as Senior Vice President and Chief Financial Officer



Great Lakes Dredge & Dock Co. (GLDD) appointed Scott Kornblau as its senior vice president and chief financial officer as of October 1.

Kornblau will be responsible for overseeing the company's financial operations including investor relations and strategic and profitable growth opportunities, while managing various accounting functions and information technology. Based in Houston, he will serve on the company's executive team and report to the president and chief executive officer, Lasse Petterson. He succeeds Mark Marinko who has left the company to pursue other opportunities in the Chicago area.

"Scott brings more than two decades of both financial and industry experience to his role at GLDD and I'm pleased to welcome him to our leadership team," said Petterson. "Our company has seen exponential growth over the last few years and I'm confident Scott's multidisciplinary leadership will contribute to and elevate our strategic plan."

Prior to joining GLDD, Kornblau held various finance and leadership positions at Diamond Offshore Drilling, Inc., and most recently served senior vice president and chief financial officer.

Kornblau graduated from the University of Texas at Austin with a degree in accounting and is a licensed Certified Public Accountant in the state of Texas.

BGE Welcomes Amie Guan as Senior Project Manager in Houston



BGE, Inc., has announced that Amie Guan, PE, CFM joined the firm as a senior project manager in the Public Works department in the Houston office.

Guan brings more than 15 years of experience in hydrology, hydraulics, water resources and hydrogeology. Her areas of specialty include stormwater drainage studies, channel conveyance capacity evaluation, hydraulic structure design, flood mitigation analysis, pipeline groundwater 3D modeling and flowline design and optimization.

"Amie's expertise and experience provide tremendous value to our hydrology and hydraulics practice and our ability to serve our clients in the Houston region," said Rodney Heisch, BGE senior vice president and Houston region operations leader. "We look forward to having her on the team."

Guan is a licensed engineer in Texas, and she earned her doctorate in hydrogeology from Clemson University.

The Houston Pilots and WISTA Seek Donations for Christmas Boxes for Seafarers



It's been a tough year and half for mariners worldwide. The Houston Pilots and WISTA (Women's International Shipping & Trading Association) will be packing Christmas boxes again for the Seafarer crews docking in the port of Houston and Galveston/Texas City to brighten up their holiday. A link to items needed are

listed in the provided link ...the list will grow daily. Thank you to all! To donate go to: <https://lnkd.in/eMzttv2U>.

Rice Professor Richard Baraniuk Wins 'Nobel Prize of Education'



Richard Baraniuk, the C. Sidney Burrus Professor of Electrical and Computer Engineering (ECE) and founding director of OpenStax, Rice University's educational technology initiative, has received the Harold W. McGraw, Jr. Prize in Education.

Known informally as the "Nobel Prize of education," the Harold W. McGraw, Jr. Family Foundation and the University of Pennsylvania Graduate School of Education bestows the annual award on "outstanding individuals whose accomplishments are making a difference in the lives of students."

Baraniuk is among the founders of the open education movement promoting the use of free and open-source-licensed educational resources. OpenStax (formerly Connexions) is a nonprofit publishing project he founded in 1999 to bring textbooks and other learning materials into the digital age.

During the last academic year, free and open-source texts from OpenStax were used by 4.5 million students and 16,000 faculty at roughly 62% of U.S. colleges and universities. Since 2012, 14 million students have saved an estimated \$1.2 billion.

Baraniuk's research has focused on the development of digital signal processing, image processing and machine learning systems, with contributions to the theory of wavelets, compressive sensing and deep learning. His "single-pixel camera," developed with Kevin Kelly, associate professor of ECE at Rice, was the first compressive imaging device.

He holds 35 U.S. and four foreign patents, six of which have been licensed to Siemens to accelerate MRI scans.

San Jacinto College Celebrates South Campus Engineering and Technology Center Grand Opening

San Jacinto College celebrated innovative technology and bright, open spaces for hands-on learning with the recent grand openings of its Engineering and Technology Center at the South Campus. The college celebrates its 60th anniversary this year.

"San Jacinto College is teaching different students today than we did when we first opened our doors in 1961," Chancellor Dr. Brenda Hellyer said. "That is why we continually look at how we can better serve them where they are as today's modern students. New facilities such as the Engineering and Technology Center allow students to learn through hands-on training, using cutting-edge technology and techniques taught by some of the best industry leaders and educators available."

On September 22, the college celebrated the grand opening ceremony and ribbon cutting for the Engineering and Technology Center, with elected officials, community members, faculty, and staff attending.

The 74,000-square-foot Engineering and Technology Center houses engineering, math, computer science/information technology, engineering design graphics, and biomedical equipment repair technology programs. Collaboration and state-of-the-art facility design are the focus -- from three-sided whiteboards for student engagement to SageGlass with on-demand tinting and solar tubes for energy efficiency.

An innovation area, the Thinkerspace, provides virtual and augmented reality capabilities for teams to design and test ideas before creating prototypes. The Makerspace, the building's centerpiece, allows students to transform ideas into real solutions through 3D printing, a metal shop, a wood shop, and a welding area.

The Engineering and Technology Center stemmed from the college's 2015 \$425 million bond referendum.

Demurrage course will cover:

- What is Demurrage?
- Charterer's Mitigation of Owner's Damages?
- Owner's Mitigation of Charterer's Demurrage?
- Types of Charter Parties
- Port Charter v Berth Charter
- Owner's Obligation under a Charter Party
- Charterer's Obligation under a Charter Party
- Notice of Readiness
- Laydays / Delivery Windows
 - Early / Late Arrival
 - Charterer's Recourse
- ETAs
- Types of Logs
- Deductions from Time Counting
 - Pumping
 - Shifting
 - Breakdowns
 - Weather
- Calculation of Demurrage
- Transshipments
- Time Bars
- Charterer's ability to mitigate its demurrage via:
 - stakeholders
 - contracts
 - vetting
 - KPIs
 - efficiency



Demurrage Mitigation, Profit, & Loss-Course-November 16th



Join Brendan Hoffman, CEO of Haugen Consulting at the Greater Houston Port Bureau training room, as he discusses demurrage, and explores how to mitigate or profit from demurrage, and how exposures may be unwittingly created. Cost of course per person is \$100 to cover materials and lunch for Port Bureau members only at a discounted rate.

Haugen Consulting LLC was established in 1995 and provides companies with training and services for demurrage for vessels, rail, and truck logistics. Since 2003, Haugen has been successfully conducting training programs worldwide and educating participants about the intricacies of tanker operations, laytime and demurrage. Their courses cover common demurrage pitfalls, best business practices, cost-effective solutions to minimize disputes and normally cost from .

To register and submit payment for the class, go to <https://lnkd.in/edu.Jyax3>. Class size is limited and for Port Bureau members only.





October 2021 Commerce Club Featuring Captain Jason Smith, Commander, Sector Houston-Galveston, US Coast Guard

Telling the Sector Houston-Galveston Story of the Last Year



Captain James Smith
Commander
Sector Houston-Galveston,
USCG

Captain Jason Smith, Commander of Sector Houston-Galveston (“the Sector”) for the U.S. Coast Guard, brought Commerce Club attendees up-to-date on the events of 2021, focusing on the area partnerships that help their team better ensure the safety, security, and stewardship of the local Marine Transportation System. The event was hosted by the Greater Houston Port Bureau at the Houston Marriott South on October 14.

Sector Houston-Galveston areas of responsibility extend from Freeport, Texas, to Lake Charles, Louisiana, and comprised of over 1500 activity duty, civilian, and reserve personnel. This area encompasses five of the 20 busiest ports in the nation as well as 247 miles of Gulf Intracoastal Waterway. Together these ports and waterways account for 25% of the total U.S. tonnage by ships.

“There is lots to protect, both environmentally and economically, and we couldn’t do all that we do without our partnerships,” stated Captain Smith.

Safety

Over the last year, the Sector conducted over 3,000 vessel inspections and over 1200 facility inspections. Voyage terminations numbered 36. They partnered with Galveston-Texas City Pilots to promote best safety practices and more open communication with fishing vessels and other

traffic. The Coast Guard Auxiliary also assisted in this safety outreach effort with deep draft traffic to help resolve the “small boat, big wake” issues that occur. This project was held in cooperation with Lone Star Harbor Safety Committee (lonestar.org) in developing out their published safety guidelines.

Security

Working with law enforcement is a significant safety priority and the support of the Houston Ship Channel Security District (“the Security District”) has played a pivotal role. Essential funding is provided by the Security District to elevate communication systems and provide significant equipment assets to the agencies involved in monitoring and responding to hazards or incidents.

Cybersecurity is an area of growing importance to the maritime industry. Locally, the Sector has been working in the area of maritime security partnerships. Captain Smith described these groups as helping to “close the circles” in potential cybersecurity gaps.

Environment

In protecting the marine environment, the Sector responded to just over 500 incidents during the last year. Of these, only 16 were federalized. Captain Smith credited industry for responsiveness and efficiency in handling environmental clean-up. In handling efforts, the Sector seeks to protect areas that are environmentally sensitive as well as those that are economically sensitive.

Heavy Weather Events

Sector Houston-Galveston stood up 18 times for weather events over the last twelve months. The Sector has finalized it’s implementation of a modified port condition track for low certainty/low severity events, allowing early indication that the ports will not be closed, allowing the maritime community to focus on other heavy weather mitigation measures “Keep things moving -- keeping commerce moving is always important to us,” Captain Smith said.

Education Partnerships

Sector Houston-Galveston is stepping up outreach in the community to introduce the next generation to the Coast Guard. For example, Baytown Nature center hosted the Sector at their annual Nurture Nature Festival, giving them opportunity share with the about 3,000 attendees about the many missions the Coast Guard engages in on a daily basis. The Sector is also expanding partnerships with educators. At present, the Sector plans to become more involved with Texas Southern University and in the maritime high schools in the area.

“We are always looking for ways to get more involved with the community – with the young people who will be sitting here in 20 years,” Captain Smith concluded.



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