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FEATURE

EPA's Jackson: Clean Air Act Not Ideal Tool To Regulate Emissions, But Is A Tool

It is becoming more apparent that the Environmental Protection Agency (EPA) does indeed plan on acting on its previous warnings that it would attempt to regulate greenhouse gas (GHG) emissions through the Clean Air Act if Congress failed to enact legislation to do the same.

While speaking this week at the Energy Information Administration's (EIA) Energy Conference in Washington, Lisa Jackson, administrator of the EPA, admitted that the best approach to reducing harmful emissions would be through legislation, but said that since that didn't happen in the past year the EPA would have to utilize another tool.

"I joined the President in calling for legislation to address greenhouse gas emissions because I do believe that would've been the most efficient way for our economy to move in the direction of reducing pollution from many different sources. But that didn't happen, so now we're left with the Clean Air Act. It's not the ideal tool, but it is a tool," she said.

Jackson cited the U.S. Supreme Court's 2007 decision that authorized the agency to investigate GHG emissions and whether regulation was necessary. Since Jackson took over as head of the EPA in 2009 this decision

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INSIDE LOOK AT PROCESSING

Encana: Duvernay Shale Could Be Similar To Eagle Ford

While Encana continues to develop its reserves in the Horn River Basin and Montney shale, the company is ready to begin developing a new liquids-rich play in Canada. The company holds approximately 190,000 acres in the Duvernay shale in west central Canada as part of its program to concentrate on increasing liquids production.

"We're drilling liquids-prone targets on our existing lands, expanding development into liquids-rich areas, exploring for oil and acquiring large and significant positions of highly prospective liquids-rich lands as well. Of our 2011 capital budget, about $1 billion is directed towards activities that will increase our future liquids recovery," Randy Eresman, chief executive of Encana, said on a conference call to discuss Q1 2011 earnings.

The company acquired its acreage in the Duvernay shale for roughly $300 million and anticipates that the play could add significant liquids production. Development of the play is early, but it may be similar to the Eagle Ford according to Michael Graham, the company's executive vice president and president of its Canadian division. "We could go from sort of a dry gas window into a liquids-rich window," he said with roughly two-thirds of Encana's acreage in the play being in the liquids-rich portion based on test well results.

Eresman added that increased liquids production may also be increased out of the company's holdings in the Niobrara and Mancos shales in the DJ basin in Colorado, as well as the Collingwood shale in Michigan.

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DUG 2011: Midstream Companies Target Shale Core Areas

Booming gas production coming from shale plays is creating big opportunities for midstream companies, speakers said at DUG 2011 in Fort Worth. They cited data from the Energy Information Administration, which predicts shale production will grow at a compound annual growth rate (CAGR) of 8% from 2010 to 2015, and at 3% CAGR to 2035. By 2020, shale plays will be producing 50% of all U.S. gas supply.

"The midstream industry is meeting the challenge," said Don Raikes, vice president, transmission marketing and customer services for Dominion Transmission Inc., a unit of Dominion (NYSE: D).

"We think it takes several years to complete a full-cycle capital investment program in a shale play. We need to move right along with the producers from a play's inception to its fast-growth phase to mature development," said Robert G. Phillips, chairman, president and chief executive of Crestwood Midstream Partners LP (NYSE: CMLP), formerly known as Quicksilver Gas Services LP.

"Today we are living in one of the most exciting times in the history of natural gas," Raikes told close to 2,500 DUG attendees. "A couple of weeks ago, our current president actually mentioned natural gas nine times in his speech on energy at Georgetown University. The time for natural gas is now, but one thing we can't be is too comfortable."

KEY NORTH AMERICAN HUB PRICES	
2:46 PM CST / April 28, 2011	
Gas Hub Name	Current Price
Carthage,TX	4.28
Katy Hub, TX	4.36
Waha Hub, TX	4.26
Henry Hub, LA	4.38
Perryville, LA	4.31
Houston Ship Channel	4.34
Agua Dulce TX	4.33
Opal Hub, Wyo.	4.15
Blance Hub, NM	4.11
Cheyenne Hub, Wyo.	4.2
Chicago Hub	4.45
Ellisburg NE Hub	4.47
New York Hub	4.62
AECO , ALBERTA	4.08

Source: Bloomberg

The reason? There is limited market demand growth now due to the recession; there are many environmental concerns associated with natural gas development that may slow it down; and recent pipeline incidents and spills at gas wells damage the industry's credibility.

"The battle for public opinion rages on," Raikes said.

The nature of U.S. natural gas supply has changed, he pointed out, and the midstream is adapting to those changes. At one time in the not-too-distant past, people thought the U.S. would not have enough gas supply and some 40 new LNG plants were proposed to import liquefied natural gas. Only four ended up being built. Then, increased gas supply from the Rocky Mountain region was thought to be the answer.

"Now, the Marcellus shale in our own backyard is the answer. Three years ago, we asked, 'Is it real?' A year ago we asked, 'How big is it?' Now we are asking, 'What are we going to do with all this natural gas?'"

Some experts think that by 2020, the Marcellus will be producing 10 billion cubic feet a day.

Raikes said he thinks the Marcellus is the kid brother who will grow up to be the biggest factor in the shale family--and, a new baby has joined the family, the Utica shale.

Infrastructure is being developed now, despite lower demand for natural gas at the moment, he said.

Each midstream player is developing its strategy to match individual shale developments. "We don't want to get caught up in just dry-gas plays or wet-gas plays. We like diversity," Crestwood's Phillips said. The company has assets in the Fayetteville shale core area, and four days after it acquired assets there, BHP Billiton announced it will spend $800 million to $1 billion annually in the play. "Even though it is mostly a dry-gas play, it is seeing accelerated production growth," meaning plenty of midstream potential exists, Phillips said.

The company is also active in the Barnett, Granite Wash and Avalon shale plays, but the Barnett remains the young company's core area. "Not all shale plays are the same and not all producers are the same. We want to follow the producers who are in the core areas. We plan to be careful about how we invest and in what cycles of shale development."

Phillips said the Barnett is in the mid- to late-stage phase of development where the infrastructure is largely built out, whereas the Fayetteville is in mid-stage, the Granite Wash is in early- to mid-stage, and the Avalon is in the early stage.

In the Barnett operators are drilling fewer wells, but better ones as they optimize a mature play that is yielding about 5.1 billion cubic feet a day of gas. The infrastructure is also mature, and in some cases, even underutilized, he said, which can lead to consolidation.

In the Fayetteville, which produces about 3.1 billion a day, Crestwood is the only independent gas processor there. In the Granite Wash, which has several stacked pay zones, operators have only begun to scratch the surface, he said.

"We'll see a tremendous amount of capital invested in this area to handle the NGLs and a lot of the old legacy assets have to be replumbed to handle this new, high-pressured gas."

– Leslie Haines

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NEC's Sperling: Decreased Dependence On Foreign Oil Imperative To Improving Economy

While there has been an uptick in oil and gas prices in 2011, Gene Sperling, director of the National Economic Council and assistant to the President for Economic Policy, said that the administration has been prepared for such price hikes.

"Before a single protester had gone out on the streets in Egypt, we were already predicting that oil and gas prices would be stronger in 2011 than in 2010. This was due to projections of stronger growth in the U.S. as well as increased global demand," he said while speaking at the Energy Information Administration (EIA) Energy Conference in Washington this week.

Sperling said that based on increased oil prices, the average American family is expected to spend $400-$500 more on gasoline this year than in 2010. "There is no question that higher oil prices are straining family pocketbooks and that it is affecting consumer confidence…One positive thing that is normally not recognized is that the tax cuts the President passed in December have turned out to be an even more important cushion than one could have imagined at the time."

These tax cuts included a 2% payroll tax cut, which provides the average American family an additional $1000 during the course of the year. While it was designed to spur on the economy, it was also included to help consumers prepare for higher gas prices.

Sperling said that although the administration was prepared for such price increases, it is also attempting to limit them in the future by focusing on other forms of energy besides imported sources, such as oil. He noted that these foreign supply sources are also impacted by increased demand from developing nations, which further drives prices up.

"We find ourselves in a somewhat perverse situation where as long as we are so dependent on oil, we find ourselves not only at the mercy of supply disruptions in other parts of the world or higher risk premiums due to geopolitical unrest, but at risk of being negatively impacted by global growth elsewhere. In an ideal world we would fully embrace this because it lifts people out of poverty and expands markets for American exports. But as long as we are this dependent these kind of increases…it can have a deleterious impact on consumers," he said.

According to Sperling, natural gas has the potential to enhance our national security by displacing oil as a transportation fuel, and reducing CO_2 emissions causing climate change by displacing coal in electric power generation.

In order to further the use of natural gas in these areas, producers should embrace regulations designed to ensure safe drinking water as it relates to hydraulic fracturing in order to build public trust in the industry.

"We as a country have never, up to this point, really capitalized on using these moments to force us to take the long-term actions that would prevent us from being in this situation again," he said.

While Sperling encouraged the use of alternative fuels to oil, he added that he did not think it was necessary to continue with tax breaks for oil and gas producers. "At a time when we are asking our entire country to engage in shared sacrifice, we have to ask if we can still afford $43 billion over 10 years on subsidies that are not efficient, needed or consistent with our G20 commitments and obligations."

– Frank Nieto

EPA's Jackson … *(continued from page 1)*

has been at the center of increasing discord between the agency and the oil and gas industries.

While EPA contends that the decision gave the agency the authority to regulate GHG emissions, the industry contends that the decision merely gave the agency the authority to study the issue.

Last year the EPA released regulations to limit emissions from transportation vehicles and Jackson said the agency is now prepared to move on to regulating emissions from stationary sources, such as refineries, power plants and gas processing plants through tailoring rules.

At the EIA conference, Jackson added that she hoped that Congress would not attempt to limit the agency's authority to regulate greenhouse gas emissions through the Clean Air Act.

"I believe there is nothing to fear from common sense use of the Clean Air Act… The Clean Air Act is really a technology law, although it is thought of as a public health law…The writers of the law were relying on technology to move us forward. The technology for dealing with carbon pollution is not there. The technology that is there is energy efficiency," Jackson said,adding that her hope was that regulations of emissions under the act would be a precursor to legislation that will take over.

During her keynote speech, Jackson cited the positive effects that EPA regulations have had on the country such as the Energy Star program, which helped Americans save a total of $18 billion on their utility bills in 2010, and the Clean

Cars program, which increased fuel efficiency standards and added new jobs for the American workforce.

"Two thousand of our fellow Americans have new opportunities because of certainty of regulations that are built on the simple premise of energy efficiency and the importance of it to our nation's energy future. Two thousand jobs that help meet environmental standards that we set in motion with the Clean Cars program," she said.

Jackson also stated that it was important for the country to move away from oil not only because of the harmful effects its use has on the environment, but because its high prices have hindered the economic recovery that was occurring before oil prices began to surge upward.

She noted that this price increase was not caused by increased demand or from environmental regulations from the EPA, but from the country's dependence on imported energy. "This is what leaves us vulnerable to jumps in prices. When something happens thousands of miles away, the American people pay for it at the pump."

The country should continue to move away from this dependence and towards cleaner and domestically produced energy, she said. "Without question, we must increase domestic sources of fuel and shrink our dependence on foreign supplies, but we're not going to do that in any way that jeopardizes the environment."

One key fuel source noticeably absent from Jackson's speech was natural gas, which President Obama recently listed as a clean energy source. While she did discuss the importance of increasing the use of clean fuels, natural gas was never identified by name.

In fact, the only time Jackson specifically discussed natural gas was when she was asked about the EPA's role in regulating hydraulic fracturing. She said the agency was mindful that they were not the only agency acting on fracking and that they would prefer the states being the level of first response.

"For years, oil and gas production has principally been regulated by the states and EPA has a number of exemptions from its laws for oil and gas production because there wasn't a need to have us [EPA] in that space. Hydraulic fracking is a bit different on the scale we're seeing it. Not only do you inject, which we would normally potentially regulate under our underground injection and control regulations under the Safe Drinking Water Act, but you also have produced water that comes back from the fracking process," she said.

Consequently, the agency is investigating potential regulations in a few ways. The first is a two-year study to look at the impact of fracking on drinking water. In addition, the EPA is looking at different states without their own underground injection and control regulations in which it may be able to provide guidance. This is especially true for fracking involving diesel as part of the fracking fluid ingredient as EPA does not believe diesel is exempted from Clean Drinking Water regulations.

– Frank Nieto

DUG 2011: Moving America's Unconventional Resources To Market

As the character Ray Kinsella says in the movie *Field of Dreams*, "If you build it they will come." However, midstream companies can't afford to take that chance without commitments from operators.

The rapidly expanding Eagle Ford shale play has a clear need for additional midstream facilities; in response to this, Enterprise Products Partners LP (EPD) is eager to expand their operations in the area as commitments increase according to Mike Creel, president and chief executive, who spoke at Hart Energy's sixth annual Developing Unconventional Gas (DUG) conference and exhibition in Fort Worth, Texas, on April 19.

According to Creel, "Enterprise Products Partners has one of the most comprehensive, integrated midstream systems for natural gas, NGLs, petrochemicals, crude oil and refined products in the U.S."

The company's assets include 50,200 miles of natural gas, NGL, crude oil, refined products and petrochemical pipelines; 192 MMBbls of liquid hydrocarbons and 27 Bcf of natural gas storage capacity; 25 natural gas processing plants; 19 NGL and propylene fractionators; six offshore hub platforms; NGL import/export terminals; a butane isomerization complex; a octane enhancement facility; and, a high-purity isobutylene facility.

EPD is proud of its ability to build a "value chain." The company entered the Jonah/Pinedale and Piceance basins in 2005 "when tight sands were the emerging play," said Creel. Since 2005, volumes have grown 65% in the Jonah/Pinedale area and 250% in the Piceance Basin, he added. Investment to date in these areas has been approximately $3.2 billion.

Resin Prices					
Market Update – April 29, 2011					
TOTAL OFFERS: 10,472,248 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
PP Copolymer - Inj	1,893,644	0.86	1.01	0.96	1.00
LLDPE - Film	1,803,588	0.66	0.75	0.70	0.74
HDPE - Blow Mold	1,629,312	0.76	0.84	0.75	0.79
LDPE - Film	1,482,300	0.73	0.76	0.70	0.74
HDPE - Inj	1,140,000	0.98	0.98	0.94	0.98
HMWPE - Film	970,024	0.77	1.00	0.89	0.93
PP Homopolymer - Inj	396,828	0.74	0.76	0.74	0.78
LDPE - Inj	380,000	0.90	0.90	0.84	0.89
GPPS	380,000	0.98	0.98	0.92	0.97
HIPS	220,184	0.76	0.80	0.77	0.81
LLDPE - Inj	176,368	0.73	0.73	0.84	0.88

Source: Plastics Exchange – www.theplasticsexchange.com

In the Haynesville shale Enterprise's Acadian extension has 150 end-use markets, a storage facility and connection to the Henry Hub. Additionally, it will provide access to nine interstate pipelines and two intrastate pipelines.

In the Eagle Ford shale the company has approximately 85% of capacity subscribed by third parties; the majority are producers, utilities and power plants. The Sherman Extension has capacity of 1.2 Bcf/d; the Wilson Storage will add 5 Bcf capacity and should be complete by the end of this month.

Creel noted that Enterprise is "strategically positioned to serve the Eagle Ford, Haynesville and Woodford shale plays" and well positioned to provide additional services in emerging plays like the Niobrara, Mancos, Avalon, and Bone Spring.

Enterprise also has an integrated NGL value chain which supports growth in NGL demand for both domestic petrochemical customers and exports to international markets.

Enterprise Products is in the field to make unconventional resource operators' dreams come true.

– Ann Priestman

Encana ... *(continued from page 1)*

"By bringing on more oil and NGL production and stripping out more NGLs from our natural gas stream, we expect to significantly increase the weighting of liquids in our portfolio, capturing more value and enhancing returns," Eresman said. He added that the company is also building more facilities focused on increasing its liquids extraction capacity from these plays as well as other holdings.

Included in this plan to increase liquids production is the company's recently announced agreement to acquire a 30% interest in the planned Kitimat LNG export terminal in British Columbia. "By investing in this planned international trade facility, we're helping diversify the markets for North America natural gas toward exporting production for the first time from Canada to overseas markets," he said.

Much of these exports would be focused on Asia, which is increasing its demand levels for natural gas as seen in the formation of a 50/50 joint venture in the quarter between Encana and a PetroChina subsidiary for Encana's Cutbank Ridge gas-rich assets in British Columbia and Alberta. Approval for this $5.67-billion agreement is still pending from both Canadian and Chinese authorities, but Encana anticipates further third-party agreements in the future.

"We recently initiated a new process seeking joint venture partners on certain assets in the Horn River and Greater Sierra areas. We're also offering an acquisition opportunity for a portion of the Jean Marie assets within the Greater Sierra resource play," Eresman said.

Encana is increasing its focus on liquids due to the persistence of low gas prices. However, the company managed to generate strong earnings in the quarter despite this hindrance. For Q1, Encana posted earnings of $15 million on cash flow of roughly $955 million.

These returns were due to increased production, which was led by growth in Cutbank Ridge--up 40% from the previous year--and the Horn River, which grew from 11 million cubic feet per day (MMcf/d) of production in Q1 2010 to 70 MMcf/d in Q1 2011 as well as the Haynesville, where production increased 118% from the previous year's quarter. Haynesville production is expected to increase in the second quarter as Encana moves from land retention drilling to resource play hub style drilling.

Capex funding was roughly $1.3 billion in the quarter and the company remains on target to hits its planned total of $4.6 billion to $4.8 billion in spending for the fiscal year. "This capital investment has worked to advance the development of several established and emerging resource plays while at the same time generating production growth. We're firm believers in the benefits of high-grading our portfolio and are continuously looking for opportunities to divest assets that no longer fit with our future development plans, as well as adding new lands in promising areas," Eresman said.

In the quarter, the company divested approximately $400 million worth of non-core assets in North America, including the sale of the Fort Lupton natural gas processing plant near Denver, Colorado, to Western Gas Partners for $303 million.

– Frank Nieto

NEWS & TRENDS

Eagle Rock Expands Its Phoenix Plant In The Granite Wash

Eagle Rock Energy Partners, LP, Houston, has reported its intention to expand its high efficiency cryogenic Phoenix processing plant, located in Hemphill County, Texas by an incremental 30 MMcf/d. Once the expansion is completed, the plant capacity will total 80 MMcf/d. The expansion of the Phoenix Plant, coupled with additional expansions of related gathering systems, will increase Eagle Rock's total processing and gathering capacity and accommodate volume growth from the Granite Wash play. The expansion of the Phoenix Plant and certain gathering systems is a direct complement to the Partnership's recent acquisition of the CenterPoint Energy assets which extended the partnership's reach into Hemphill and Wheeler Counties in its East Panhandle System.

The expansion of the Phoenix Plant and related gathering systems is expected to be completed in the fourth quarter of 2011 at a cost of approximately $20 million. Eagle Rock does not anticipate downtime or reduced throughput volumes across its East or West Panhandle Systems during the completion of the project.

In addition, due to the increased demand for additional processing capacity in the area, the Partnership does not intend to shut down and re-direct gas volumes from its Canadian Plant in Hemphill County, Texas into the Phoenix Plant as previously announced. The partnership's Canadian Plant will remain operating, with total processing capacity of 25 MMcf/d.

Joseph A. Mills, chairman and chief executive, stated, "We are pleased to announce the expansion of our Phoenix Plant to take advantage of the growth we are seeing in the Granite Wash play and to better serve our producer customers as they expand their drilling footprints."

Kinder Morgan Invests $90 Million To Expand Ethanol Handling Services At Houston Terminals

Kinder Morgan Energy Partners, LP, Houston, has reported it has completed construction of its Deer Park Rail Terminal (DPRT) and related ethanol handling assets at its Pasadena Terminal located along the Houston Ship Channel. The $19 million project included building a new ethanol unit-train facility capable of handling 14,000 barrels per day (bpd) with space for multiple unit trains, an offloading rail rack for unit-trains of approximately 100 railcars, and an 80,000-barrel storage tank at DPRT. The company also extended an existing ethanol pipeline by 2.4 miles so that product can be moved from DPRT to its Pasadena terminal for either storage or blending at multiple area truck racks. Kinder Morgan successfully unloaded the first ethanol trains last week and has plans to expand the facility to handle 20,000 bpd. Combined with other expansions and acquisitions already completed or under way, the company has now invested approximately $550 million in the renewable fuels handling business.

"Our DPRT unit-train facility and its inter-terminal connections provide additional service options to our Gulf Coast customers and further expand our nationwide distribution network of ethanol handling facilities connected by rail, marine, truck and pipeline," said KMP Terminals president Jeff Armstrong.

The project is supported by long-term customer contracts and is expected to be immediately accretive to KMP unitholders.

With the DPRT facility, Kinder Morgan now has six unit-train facilities located in key markets across the U.S. – Lomita and Richmond, Calif., Dallas and Deer Park, Texas, Baltimore, Md., and Linden, N.J. These facilities, along with the company's other ethanol terminal assets, will help meet the nation's growing need for biofuels mandated by the Renewable Fuels Standard. In 2010, KMP handled approximately 30% of the ethanol used in the United States.

Dow Chemical Plans Ethylene Plant As Shale Gas Supplies Rise

The Dow Chemical Co., Midland, Mich., has reported its comprehensive plans to increase the company's ethylene and propylene production -- and to integrate its U.S. operations into feedstock opportunities available from increasing supplies of U.S. shale gas in the Marcellus and Eagle Ford shale regions.

"The improved outlook for U.S. natural gas supply from shale brings the prospect of competitively priced ethane and propane feedstocks to Dow – and the promise of new manufacturing jobs to America," said Jim Fitterling, Dow executive vice president and president of corporate development & hydrocarbons. "Our plan is to further integrate Dow's businesses with the advantaged feedstocks, based on shale gas deposits and long-term ethane and propane supply agreements. These actions will strengthen the competitiveness of our Performance Plastics, Performance Products and Advanced Materials businesses, for example the Elastomers product family and the full Acrylates chain, as we continue to capture growth in the Americas."

Dow Increases Ethylene Supply And Ethane Cracking Capabilities in U.S. Gulf Coast

Dow is currently finalizing plans to increase the company's ethylene supply and increase its ethane cracking capabilities at existing U.S. Gulf Coast facilities by:

- Re-starting an ethylene cracker at the company's St. Charles Operations site near Hahnville, La., by the end of 2012;
- Improving ethane feedstock flexibility for an ethylene cracker at the company's Louisiana Operations site in Plaquemine, La., in 2014;
- Increasing ethane feedstock flexibility for an ethylene cracker at the Dow Texas Operations site in 2016;
- Constructing a new, world-scale ethylene production plant in the U.S. Gulf Coast, for start-up in 2017.

Dow Increases Propylene Supply

Dow is currently finalizing plans to increase the company's propylene supply by:

- Constructing a new, world-scale, on-purpose propylene production facility at Dow Texas Operations, for start-up in 2015;
- Exploring an option to commercialize its own technology to produce propylene from propane, with the potential start-up of a new production unit in 2018.

Dow Pursues Additional Feedstocks From The Eagle Ford And Marcellus Shale Regions

Dow plans to supply the required ethane and propane for these projects through a variety of supply arrangements, including: a possible joint venture fractionator in Texas, supply from existing fractionators, supply from future new fractionators to be built within the industry, and potential supply deals from various shale gas opportunities such as the Eagle Ford and Marcellus shale regions. Dow has signed ethane and propane supply contracts based on the Eagle Ford shale gas and is pursuing several more agreements from this area.

In addition, Dow has signed a Memorandum of Understanding (MOU) with a wholly-owned subsidiary of Range Resources Corp., stating plans to enter into a long-term supply agreement for the delivery of ethane from the Marcellus Region in southwest Pennsylvania to Dow's existing operations in Louisiana.

"As the largest consumer of propylene in North America, Dow has a unique opportunity to invest aggressively for on-purpose propylene production from propane. Additionally, Dow is the largest producer of ethylene in North America, which provides capabilities to increase our use of ethane in existing ethylene production units – and to grow," Fitterling said. "All of these investments, combined with Dow's planned agreement with Range Resources, will dramatically increase our capability to consume ethane, while maintaining our industry-leading feedstock flexibility."

Elk City Storage Expansion Now Operational

Southern Star Central Gas Pipeline Inc., Owensboro, Ky., has reported that its Elk City Firm Storage Expansion became operational April 1, 2011. This expansion increased Southern Star's daily deliverability by 40,000 decatherms per day and increased its storage capacity by 4,000,000 decatherms. The expanded capacity and deliverability are fully subscribed.

Southern Star filed an application to construct facilities at its Elk City storage field to provide this storage service at market-based rates and was granted authority by the Federal Energy Regulatory Commission. Southern Star currently operates 47 billion cubic feet of storage capacity.

"The expansion of this storage asset will further enhance the services and flexibility that are available to our customers," said Philip Rullman, vice president and chief commercial services officer. "We are pleased with the outcome of the Elk City project and will continue to pursue growth opportunities in the gas supply, gas storage and market areas of our system."

PIPELINES & TECHNOLOGY

Atlas To Purchase Buckeye's Stake In NGL Line

Atlas Pipeline Partners, LP, Philadelphia, Penn., has reported it has signed an agreement to partner with Chevron Pipeline Company, an affiliate of Chevron Corp. through a purchase of a 20% interest in West Texas LPG Pipeline Limited Partnership (WTLPG) from Buckeye Partners, LP for $85 million. WTLPG owns a 2,295-mile common-carrier pipeline system that transports natural gas liquids (NGLs) from New Mexico and Texas to Mont Belvieu for fractionation. Chevron Pipeline Company, which owns the remaining 80% interest, is the operator of WTLPG. The transaction is expected to close in the second quarter of 2011, subject to customary closing conditions.

"We are pleased to announce the partnership with Chevron in WTLPG, which further expands our midstream footprint into the NGL transportation business. This system is strategic to our continuing growth in the Permian basin of West Texas and we anticipate the partnership will expand opportunities in both the gathering of NGLs as well as the expansion of the WTLPG pipeline system," said Eugene Dubay, chief executive of the partnership. "We intend to update the market prior to our quarterly earnings with a full press release related to each of our expansion projects across our assets."

Spelman Pipeline Snags Utica/Marcellus Pipeline Assets From Marathon

Gas Natural Inc. has reported the acquisition of pipeline assets from Marathon Petroleum Company LP by its subsidiary, Spelman Pipeline Holdings LLC.

The assets include pipelines and rights-of-way located in Ohio and Kentucky. In Ohio, the assets include more than 140 miles of pipeline spanning almost a third of the state from Marion to Youngstown. Other Ohio assets are located in metropolitan and south suburban Cleveland. The Kentucky assets include over 60 miles of right-of-way in the Louisville area and points south. The pipelines were formerly used to transport refined petroleum products and crude oil.

Spelman intends to convert the Ohio pipelines to transport natural gas to new markets where natural gas service is not currently available as well as to link it to markets served by its Ohio affiliates. Future plans include extending the lines to participate in the Utica and Marcellus Shale plays. Plans for the Kentucky assets are uncertain.

"This acquisition presents a tremendous expansion opportunity for the Company in Ohio while bringing clean, economical natural gas service to Ohio residents and businesses where natural gas is not currently available," said Richard M. Osborne, Sr., chairman of Gas Natural.

TransCanada To Sell 25% Interest In GTN And Bison To TC PipeLines

TransCanada Corp., Calgary, Alberta, Canada, has reported it has entered into agreements to sell a 25% interest in each of Gas Transmission Northwest LLC (GTN) and Bison Pipeline LLC (Bison) to TC PipeLines, LP for an aggregate purchase price of US $605 million, which includes $81 million or 25% of GTN's debt. The sale is expected to close in May 2011 and is subject to certain closing conditions.

"The proceeds from the sale of a 25% interest in both GTN and Bison will be used to help fund TransCanada's capital program," said Russ Girling, president and chief executive of TransCanada. "Once the transaction is complete, TransCanada will hold a 75% ownership interest in both pipelines and will continue to manage and operate these high quality assets as part of its integrated North American natural gas transmission network.

"This transaction demonstrates one of the many options available to fund our current growth portfolio without additional common equity," added Girling. "We will continue to look at alternatives to further enhance our financial flexibility including subordinated securities, examining opportunities for portfolio management and an ongoing role for the Partnership."

The GTN pipeline system is a 2,178 kilometer (km) (1,353 mile) natural gas transmission system that transports Western Canada Sedimentary Basin and Rocky Mountain-sourced natural gas to third party natural gas pipelines and markets in Washington, Oregon and California, and connects with the Partnership's Tuscarora pipeline system.

Bison is a new 484 km (303 mile) natural gas pipeline connecting Rocky Mountain gas supply to downstream markets via the Northern Border pipeline system. The pipeline was constructed in 2010 and placed into service in January 2011. Shippers have contracts for 0.4 billion cubic feet per day on both Bison and Northern Border that expire in 2021. The Partnership has a 50% ownership interest in Northern Border.

TransCanada currently holds a 38.2% interest in TC PipeLines, LP, a United States Master Limited Partnership, which was formed to acquire, own and actively participate in the management of U.S. natural gas pipelines and related assets.

With more than 60 years experience, TransCanada is a leader in the responsible development and reliable operation of North American energy infrastructure including natural gas and oil pipelines, power generation and gas storage facilities. TransCanada's network of wholly owned natural gas pipelines extends more than 37,000 miles, tapping into virtually all major gas supply basins in North America. TransCanada is one of the continent's largest providers of gas storage and related services with approximately 380 billion cubic feet of storage capacity. A growing independent power producer, TransCanada owns, or has interests in, more than10,800 megawatts of power generation in Canada and the United States. TransCanada is developing one of North America's largest oil delivery systems. TransCanada's common shares trade on the Toronto and New York stock exchanges under the symbol TRP.

NGL PRICES

NGL Prices Hitting Three-Year Highs

The surge in crude oil prices is causing a similar surge in natural gas liquid (NGL) prices as they experienced significant gains across the board at both Conway and Mont Belvieu the week of April 20.

The biggest gain in price at both hubs was for ethane, which improved 9% to 82¢ at Mont Belvieu and 6% to 56¢ at Conway. The Mont Belvieu price was the largest at the hub since it was 95¢ the week of September 3, 2008 while the Conway price was the highest in a month.

Ethane prices continue to benefit not only from improved liquids prices overall, but from the strengthening of the U.S. petrochemical industry that is benefiting from a pricing advantage compared to the rest of the world. As we have reported in previous NGL Prices and Frac Spread reports, the U.S. petrochemical industry will continue to experience a price advantage due to high supply levels and increasing cracking capacity.

Propane prices also experienced solid increases the week of April 20 as they rose 4% at both hubs as supply levels remain low compared to the five-year average due to increased retail demand. The Mont Belvieu price of $1.48 was the highest at the hub since it was $1.49 the week of September 24, 2008. The Conway price of $1.38 was the highest at the hub since it was $1.43, also the week of September 24, 2008.

Butane prices also rose 4% at both hubs, nearly directly correlated to their relationship with crude prices as demand is largely down according to sources that *Midstream Monitor* spoke with. The Mont Belvieu price of $1.94 was the highest price at the hub since it was $1.99 the week of August 6, 2008. The $1.78 price at Conway was the highest since it was $1.82 the week of August 27, 2008.

Both hubs experienced a 2% price gain for isobutane the week of April 20 with the Mont Belvieu price up to $2.05 and the Conway price increasing to $2.00. The price at Mont Belvieu was the largest since it was $2.05 the week of July 30, 2008. The Conway price was the highest it had been in three weeks.

NGL PRICES

Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
April 20 - 26, '11	81.55	148.10	193.73	205.30	259.75	$63.46
April 13 - 19, '11	73.13	142.06	185.18	201.58	251.30	$60.33
April 6 - 12, '11	70.88	140.76	187.50	202.40	249.50	$59.84
March 30 - April 5, '11	73.70	136.56	186.96	198.90	246.45	$59.45
March '11	68.59	139.76	181.80	192.01	243.97	$58.42
February '11	61.86	137.14	173.64	187.12	224.73	$55.21
1st Qtr '11	63.74	137.32	175.07	186.15	228.46	$55.82
4th Qtr '10	59.07	126.07	162.01	168.24	198.89	$50.59
3rd Qtr '10	44.99	106.98	138.23	143.25	171.45	$42.37
2nd Qtr '10	50.97	108.43	145.01	157.23	178.04	$44.64
April 21 - 27, '10	54.96	112.76	162.80	165.95	198.73	$48.34
Conway, Group 140	**Eth**	**Pro**	**Norm**	**Iso**	**Pen+**	**NGL Bbl**
April 20 - 26, '11	55.50	137.48	177.90	199.98	251.53	$57.21
April 13 - 19, '11	50.36	131.40	170.28	195.50	241.18	$54.43
April 6 - 12, '11	55.88	131.12	175.00	200.55	243.60	$55.84
March 30 - April 5, '11	56.40	128.70	174.10	201.50	242.83	$55.57
March '11	50.44	129.33	169.43	190.30	244.91	$54.26
February '11	44.36	126.61	161.11	191.61	224.17	$51.13
1st Qtr '11	46.30	128.26	164.69	186.06	225.91	$51.80
4th Qtr '10	47.01	120.80	157.16	161.69	193.86	$47.80
3rd Qtr '10	31.16	101.46	132.39	141.93	163.91	$39.04
2nd Qtr '10	31.56	103.03	130.96	145.20	172.55	$39.90
April 21 - 27, '10	34.88	108.20	142.13	154.80	188.00	$42.95

Data Provided by Intercontinental Exchange. Individual product prices in cents per gallon. NGL barrel in $/42 gallons | Source: Frank Nieto

Pentanes-plus (C_{5+}) continued to have the highest price at both hubs this week as it was up 4% to $2.52 at Conway and up 3% to $2.60 at Mont Belvieu. The Conway price was the highest it has been since it was $2.52 the week of March 2. The Mont Belvieu price was the highest it has been since it was $2.65 the week of July 30, 2008.

– Frank Nieto

FRAC SPREAD

Ethane Margins Improve By 19% At Conway; 18% At Mont Belvieu

Although natural gas feedstock prices were up this week, natural gas liquid (NGL) frac spread margins increased across the board at both hubs the week of April 20 due to higher NGL prices.

The biggest gains in margin were for ethane, which are now approaching levels not seen in three years. The Conway margin rose 19% from last week while the Mont Belvieu margin was up 18%. Greater demand for ethane from the petrochemical industry should help keep prices increasing for the foreseeable future.

Propane and butane margins both rose between 5% and 6% during the week of April 20 due to lower supply levels for propane and significant NGL price increases for butane.

Despite increased demand for summer-grade gasoline, isobutane prices were among the slowest moving prices during the week of April 20 and their margin improvements were also slow. Each hub's margins improved only 2% from the prior week.

The theoretical NGL barrel price was up 5% at both Conway and Mont Belvieu due to these improved prices at both hubs. The Mont Belvieu price was $63.46 per barrel (/bbl) with a margin improvement of 7% to $47.94/bbl. The Conway price was up to $57.21/bbl with a margin improvement of 6% to $41.87/bbl.

The most profitable NGL to make at both hubs remained C_{5+} at $2.05 per gallon (/gal) at Conway and $2.13/gal at Mont Belvieu. This was followed, in order, by isobutane at $1.58/gal at Conway and $1.63/gal at Mont Belvieu; butane at $1.34/gal at Conway and $1.50/gal at Mont Belvieu; propane at 99¢/gal at Conway and $1.09/gal at Mont Belvieu; and ethane at 28¢/gal at Conway and 53¢/gal at Mont Belvieu.

Natural gas in storage for the week of April 22, the most recent data available from the Energy Information Administration, was up 31 billion cubic feet to 1.685 trillion cubic feet (Tcf) from 1.654 Tcf the previous week. Although the injection season has begun, it has been slower than expected due to increased demand from the petrochemical and retail markets. This was reflected in the fact that the most recent storage data was 11% below the same period last year when it was at 1.9 Tcf. It was also 1% below the five-year average of 1.696 Tcf.

Demand for the coming week may be tempered due to limited cooling days as the U.S. National Weather Service's forecast is calling for cooler weather than normal for this time of year along most of the Atlantic Coast and into the Midwest. Normal spring temperatures are expected in much of the rest of the country with only the Southwest expected to experience warmer than normal weather.

– Frank Nieto

Current Frac Spread (Cents/Gal)

APRIL 28, 2011	Conway	Change from Start of Month	Mont Belvieu	Start of Month
Ethane	55.50		81.55	
Shrink	27.85		28.18	
Margin	27.65	19.32%	53.37	18.03%
Propane	137.48		148.10	
Shrink	38.47		38.93	
Margin	99.01	5.50%	109.17	5.48%
Normal Butane	177.90		193.73	
Shrink	43.55		44.07	
Margin	134.35	5.15%	149.66	5.75%
Iso-Butane	199.98		205.30	
Shrink	41.83		42.33	
Margin	158.15	2.25%	162.97	2.08%
Pentane+	251.53		259.75	
Shrink	46.58		47.13	
Margin	204.95	4.72%	212.62	3.91%
NGL $/Bbl	57.21	5.12%	63.46	5.20%
Shrink	15.34		15.53	
Margin	41.87	6.14%	47.94	6.65%
Gas ($/mmBtu)	4.20	2.44%	4.25	0.95%
Gross Bbl Margin (in cents/gal)	95.74	6.15%	111.47	6.74%
NGL Value in $/mmBtu				
Ethane	3.06	10.21%	4.49	11.51%
Propane	4.77	4.63%	5.14	4.25%
Normal Butane	1.92	4.47%	2.09	4.62%
Iso-Butane	1.24	2.29%	1.28	1.85%
Pentane+	3.24	4.29%	3.35	3.36%
Total Barrel Value in $/mmbtu	14.24	5.46%	16.35	5.81%
Margin	10.04	6.78%	12.10	7.63%

Price, Shrink of 42-gal NGL barrel based on following: Ethane, 36.5%; Propane, 31.8%; Normal Butane, 11.2%; Isobutane, 6.2%; Pentane+, 14.3%, Fuel, frac, transport costs not included. Conway gas based on NGPL Midcontinent zone, Mont Belvieu based on Houston Ship Channel.

Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation.

Source: Frank Nieto

March 2011 Frac Spread: NGL Margins Experience Double-Digit Gains At Both Hubs

(Note: This is not this week's Frac Spread)

Frac spread margins in March were greatly improved from February with the big gainers being ethane and C_{5+}.

The Conway margin for ethane was up 83% from February while the Mont Belvieu margin improved by 60% on the back of increased demand for crackers, who continued to favor ethane over naphtha for ethylene cracking.

Margins were up for C_{5+} due to the steady increase in crude oil prices during the month caused by turmoil in the Middle East and the natural disasters in Japan. The Conway margin rose by 28% for the month while the Mont Belvieu margin was up by 15%.

Both hubs had such large margin improvements that the smallest gains were posted by isobutane, which rose by 10% at Conway, and butane, which rose by 14% at Mont Belvieu.

The theoretical barrel price for natural gas liquids (NGL) rose 9% at Conway to $54.91 per barrel (/bbl) with a 23% gain in margin to $40.81/bbl. The Mont Belvieu price rose 12% to $59.25/bbl with an improved margin of 21% to $45.11/bbl.

The most profitable NGL to make at both hubs in the month of March remained C_{5+} at $2.10 per gallon (/gal) at Conway and $1.97/gal at Mont Belvieu. This was followed, in order, by isobutane at $1.50/gal at Conway and $1.59/gal at Mont Belvieu; butane at $1.30/gal at Conway and $1.43/gal at Mont Belvieu; propane at $1.00/gal at Conway and $1.13/gal at Mont Belvieu; and ethane at 21¢/gal at Conway and 42¢/gal at Mont Belvieu.

– Frank Nieto

Price, Shrink of 42-gal NGL barrel based on following: Ethane, 36.5%; Propane, 31.8%; Normal Butane, 11.2%; Isobutane, 6.2%; Pentane+, 14.3%, Fuel, frac, transport costs not included. Conway gas based on NGPL Midcontinent zone, Mont Belvieu based on Houston Ship Channel. Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation. Source: Frank Nieto

Current Frac Spread (Cents/Gal)

MARCH 2011	Conway	Change from Start of Month	Mont Belvieu	Start of Month
Ethane	46.38		67.80	
Shrink	25.59		25.66	
Margin	20.79	82.27%	42.14	60.18%
Propane	135.77		148.30	
Shrink	35.36		35.45	
Margin	100.41	19.20%	112.85	19.35%
Normal Butane	170.00		183.00	
Shrink	40.03		40.13	
Margin	129.97	14.95%	142.87	13.94%
Iso-Butane	188.50		197.33	
Shrink	38.45		38.55	
Margin	150.05	10.10%	158.78	16.60%
Pentane+	253.25		239.95	
Shrink	42.81		42.92	
Margin	210.44	27.55%	197.03	14.98%
NGL $/Bbl	54.91	9.36%	59.25	11.51%
Shrink	14.10		14.14	
Margin	40.81	23.38%	45.11	21.13%
Gas ($/mmBtu)	3.86	-17.70%	3.87	-11.03%
Gross Bbl Margin (in cents/gal)	93.47	23.55%	105.29	21.49%
NGL Value in $/mmBtu				
Ethane	2.55	9.13%	3.73	22.94%
Propane	4.71	6.74%	5.15	10.34%
Normal Butane	1.84	5.13%	1.98	7.33%
Iso-Butane	1.17	3.01%	1.23	9.93%
Pentane+	3.27	16.71%	3.09	9.27%
Total Barrel Value in $/mmbtu	13.54	8.86%	15.18	12.51%
Margin	9.68	24.94%	11.31	23.71%

SNAPSHOT

Tres Palacios Storage Provides Access To Markets Throughout North America

Tres Palacios Gas Storage, a salt dome located in Markham, Texas, has a working gas capacity of 36.62 billion cubic feet (Bcf), according to Hart Energy Mapping and Data Services. (see map)

NGS Energy LP permitted, constructed and operated the underground dome salt cavern from inception through October 2010 when Inergy Midstream LP purchased Tres Palacios Gas Storage LP in for $725 million plus capital reimbursements.

According to *FoxBusiness*, the acquisition allowed Inergy to expand its gas storage footprint and create the largest independent natural gas storage provider in the U.S. In February 2011 Inergy announced that the planned extension is expected to include 20 miles of newly constructed lateral piping, additional compression and interconnection facilities.

Upon completion the expansion will create a new point of interconnects at the tailgate of Copano Energy's Houston Central gas processing plant in Colorado County, Texas. Other interstate pipeline receiving/delivery points include Cen-

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tral Texas Gathering System, Enterprise Intrastate (Channel), Enterprise Texas (Valero), Florida Gas and HPL, according to Hart Energy Mapping and Data Services. (see statistics)

The Top Five Storage Customers are Gavilon LLC with 5 Bcf of capacity; followed by Iberdrola Renewables Inc. with 4 Bcf; Njr Energy Services Co. with 3 Bcf; Edf Trading North America LLC with 2.5 Bcf; and Tenaska Gas Storage LLC with 2 Bcf.

According to the *Energy Business Review*, Tres Palacios currently connects to 10 intrastate and interstate pipelines via a 40-mile and 24-inch dual-pipe looped header system. This offers connectivity to multiple demand markets including the Houston and San Antonio metropolitan areas and the broader Texas markets as well as markets in the Northeast, Midwest, Southeast, Mid-Atlantic U.S. and Mexico.

Some additional statistics, according to Inergy Midstream, are:

- Working gas = 38.4 Bcf (Caverns 1, 2 and 3);
- High performance, multi-cycle gas storage with 1.0/2.5 Bcf/day injection/withdrawal capability;
- Planned expansion to 47.9 Bcf and multiple additional interconnects available;
- Pooling point for Intercontinental Exchange (ICE); hub for Gulf Coast; and
- Predominantly fee-based revenues contracted with credit-worthy counterparties.

– Rebecca Torrellas

General Information FERC Code: 211

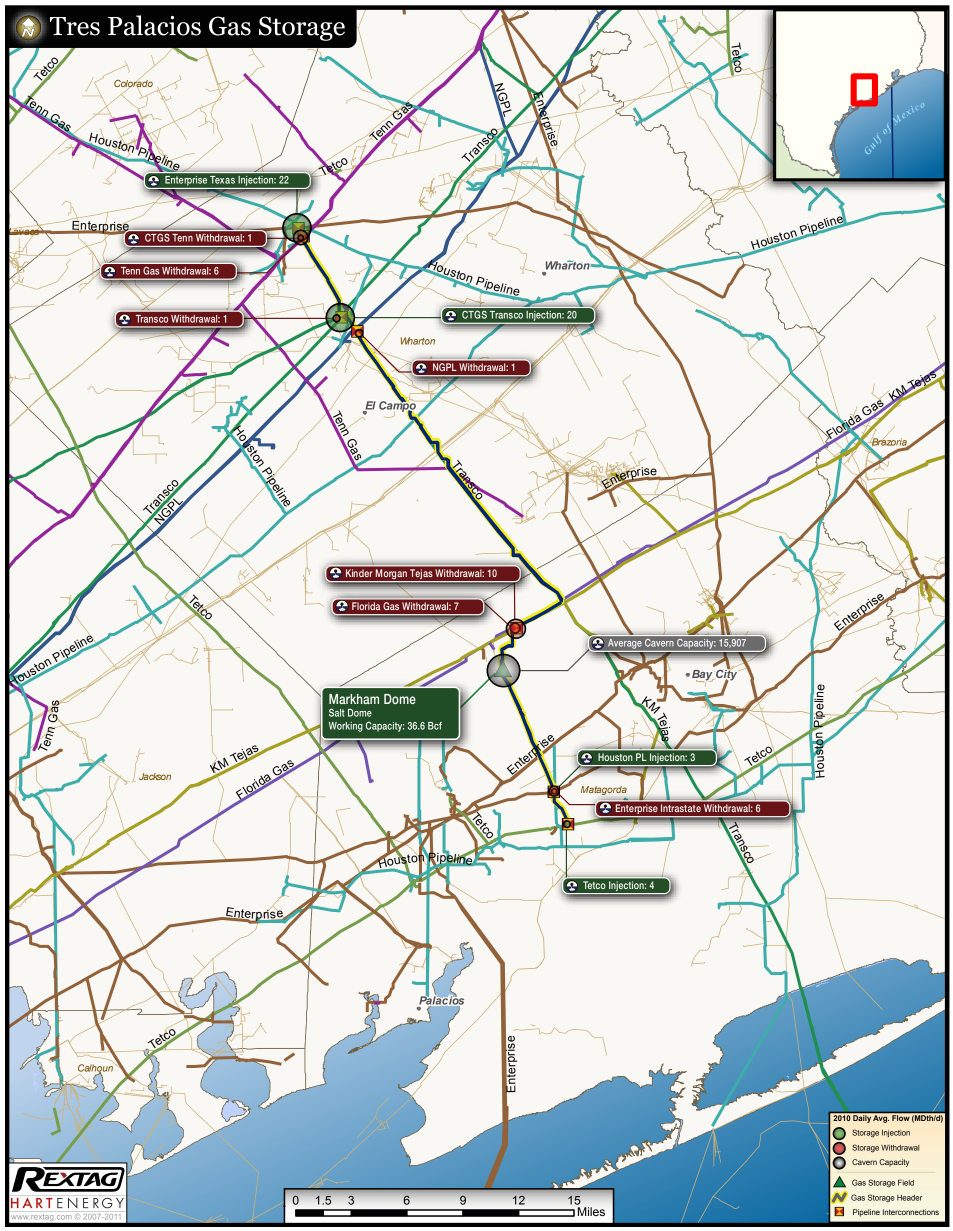
Owner:	NGS Energy, L.P.	Peak Injection:	1,000 MDth/d
Storage Type	Salt Dome	Peak Withdrawal:	2,500 MDth/d
Working Gas Capacity:	36.62 Bcf	Cycles:	N/A

Top 5 Firm Storage Customers

Rate	Customer Name	Capacity *(Bcf)*
FSS	Gavilon Llc	5.00
FSS	Iberdrola Renewables Inc	4.00
FSS	Njr Energy Services Company	3.00
FSS	Edf Trading North America Llc	2.50
FSS	Tenaska Gas Storage Llc	2.00

Contract Expirations

Year	Capacity Expiration *(Bcf)*
2011	-
2012	5
2013	5
2014	-
2015	16



Source: Hart Energy Mapping and Data Services

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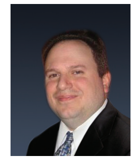

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