

**In This Week's Edition**

**FEATURE**

Experts Question Shale-Gas Future At Deloitte Conference ..... 1

**INSIDE LOOK AT PROCESSING**

Enterprise: Growing Demand As Important As Increasing Supplies ..... 1

Wells Fargo's Babowal: Energy M&A Activity To Remain Strong..... 2

El Paso Will Separate Into Two Publicly Traded Companies..... 3

Birchcliff Will Double Capacity Of Montney Gas Plant..... 4

Shell Pushes Forward With Floating LNG Project..... 4

**NEWS & TRENDS**

Devon Energy Provides Preliminary Report On Cana Plant Severe Weather Damage ..... 6

Cheniere Receives LNG Export Approval From DOE..... 6

Formosa Petrochemicals Shuts Down Naptha Cracker..... 7

Blackwater Midstream To Buy Salisbury, Maryland, Terminal..... 7

Enterprise To Sell 4.45 Million Energy Transfer Equity Common Units .....7

**PIPELINES & TECHNOLOGY**

Buckeye Completes \$85MM Sale Of NGL Pipeline Interests ..... 8

Norse Energy Receives Regulatory Approval For Pipeline Sale ..... 8

Capstone Will Supply Microturbines For Kazakhstan Pipeline..... 8

**NGL PRICES**

Ethane Prices Expected To Rebound In June ..... 9

**FRAC SPREAD**

Frac Spread Margins Down Across The Board..... 10

**SNAPSHOT**

ANR Pipeline: One Of The Largest Interstate Gas Systems In U.S. .... 11

**FEATURE**

**Experts Question Shale-Gas Future At Deloitte Conference**

While many people, not just industry insiders, are high on the role of shale gas in the long-term energy plans of the U.S., noted energy market expert Dale Nesbitt put a bit of a damper on this future at last week's 2011 Deloitte Energy Conference in Washington, D.C.

"People are talking about introducing all of this shale gas into the market and going energy independent. What if shale gas costs \$5 [per thousand cubic feet]? What if all the other gas around the world costs \$1? If you produce that gas in that price environment, you shed \$4 in GDP every time you do it. Shale gas is going to have to stand up and compete on its own," he said.

Many forecasts predict that the long-run, marginal cost of shale gas will be in the \$5-8 range. If that is true, the competition be-



tween LNG (liquefied natural gas) and shale gas will be significant, said Nesbitt, PhD and founder of MarketPoint Inc., which was acquired by Deloitte earlier this year.

He added that it is not volume that sets prices, but the economics of developing those volumes. "Prices are set by the margin." It isn't economical to produce all of the oil in the Bakken because its price is \$120 per

*(continued on page 3)*

**INSIDE LOOK AT PROCESSING**

**Enterprise: Growing Demand As Important As Increasing Supplies**

Enterprise Products Partners reported record net income of \$435 million and record adjusted EBITDA (earnings before interest, taxes, depreciation and amortization) of \$890 million in Q1 2011 due to higher natural gas and natural gas liquids (NGL) pipeline transportation volumes, record NGL fractionation and fee-based processing volumes, and strong equity NGL production.

"Our natural gas processing and related NGL marketing business benefited from an improved demand for NGLs as higher NGL sales margins and volumes led to an \$18 million increase in gross operating margin," Michael Creel, president and chief executive, said during a conference call to discuss earnings.

The company reported higher fee-based processing volumes in its Rocky Mountain and Eagle Ford regions.

"Production of NGLs in the Rockies continues to be strong with new gas processing plants expected to extract an additional 60,000 to 70,000 barrels per day (b/d) of NGLs by 2014 from major basins in Utah, Colorado, Wyoming, and New Mexico. To meet this demand...we announced a planned expansion of the Rocky Mountain portion of our Mid-America pipeline system. This project will include looping the existing pipeline with up to 290 miles of 16-inch pipe and adding more pump station capacity," he said.

The company reported that it had executed 10-year firm shipper paid transportation agreements with a total initial commitment of 38,500 b/d and expects the expansion to begin services in Q3 2014.

Enterprise is also constructing a fifth 80,000 b/d fractionation unit at Mont Belvieu

*(continued on page 5)*

## Wells Fargo's Babowal: Energy M&A Activity To Remain Strong

The energy industry was not immune to the economic downturn that began in 2008, but it has outperformed most other markets from the beginning of this downturn to the present. M&A activity dropped off in 2009 before recovering in 2010 and has held firm this year.

"Liquidity in the financing markets drives M&A. The equity markets are very active and are on track to surpass their issuances in 2011. We're seeing a lot of activity in energy IPOs and there are other MLPs in registration for IPOs. The low cost and amount of liquidity in the market is driving a lot of M&A activity," Hugh Babowal, managing director and head of energy and power mergers and acquisitions at Wells Fargo Securities LLC, said at last week's Deloitte Energy Conference in Washington, D.C.

A large portion of activity over the past 18 months has revolved around the shale plays, and most deals have focused on five plays: the Marcellus, Barnett, Haynesville, Bakken and Eagle Ford.

"These plays are driving M&A activity because of the directing of rigs to either liquids-rich plays or an oil play with associated gas," said Babowal. He noted that since producers have directed their focus to liquids plays the Barnett has experienced a downturn in both production and M&A activity, and the same events are likely to unfold in the Haynesville in the future.

Babowal also expects shale producers to continue to partner with international oil and gas companies. Such joint ventures have accounted for a total of nearly \$20 billion during the past three years in the U.S., with deals ranging from \$500 million to \$6 billion in size.

"This trend is driven by foreign companies looking to get a hold on American

know-how and technology. American companies have cracked the code on shale gas to a large extent, and that has not happened internationally. These companies want to come to our shores to learn how to exploit their own resource potential," he said.

Shale plays have helped to increase the value of midstream M&A deals, and they also have flattened basis differentials around the country. Companies are pouring capital into new pipelines to move gas to markets, especially in producer-pushed systems such as Rockies Express, Midcontinent Express and Fayetteville Express.

Additionally, the locations of such plays as the Marcellus are changing the fundamentals of the business. "The ability to build midstream infrastructure and arbitrage those basis differentials has eroded significantly over the last several years. This will continue to evolve as the Marcellus, the Utica and other resources close to demand centers continue to grow," Babowal said.

M&A activity in the midstream also continues to benefit from companies planning for future demand. Although summer-winter spreads have declined significantly from 2006 to 2011 due to low gas prices and larger supply levels, evaluation multiples for storage deals continue to climb. "People see that the U.S. is going to transition to more of a gas-centric energy infrastructure and we'll need more storage," he explained.

### Private Equity Outlook Robust

On the private capital front, Wells Fargo Securities anticipates private equity firms and infrastructure funds will remain active in M&A, although they will be targeting different deals.

"The amount of money that is flowing into these alternative asset classes is incredible. Despite the financial crisis, these private equity firms are out there raising huge sums of money," said Babowal. "We think you'll see infrastructure funds target more mature and stable fee-type assets in midstream, storage and long-haul pipelines and the classic private equity firms targeting more growth opportunities like shale plays."

The integrated companies and large independents do not have the time or attention to spend on this sector of the midstream, but private equity firms can do a lot of things to extract value from these types of assets, he said.

### Taxation Could Hurt MLPs

Babowal also discussed recent conjecture around the possibility that the U.S. government will impose taxes on MLPs. While such action would hurt the market, it would not end it, he said. "I won't speculate as to the likelihood of such action, but I will point to Canadian income trusts." It isn't a perfect analogy because the Canadian trusts started as oil and gas businesses and then began to include any sort of cash-flowing company, which the Canadian government stopped because of lost tax revenues.

"However, if you look at the valuations of the Canadian midstream players there was a period of dislocation between when this tax change was announced and when it went into effect. These valuations have now shifted back to where they were prior to the announcement. So I think it would be a negative for the MLP world, but not the end," he said.

— Frank Nieto

## El Paso Will Separate Into Two Publicly Traded Companies

El Paso Corp., Houston, (NYSE: EP) says its board of directors has granted initial approval of a plan to separate the company into two publicly traded businesses by year-end 2011.

Following the completion of the proposed spinoff, El Paso Corp. will be comprised of El Paso's Pipeline Group, its midstream group, and its general and limited partner interests in El Paso Pipeline Partners L.P. (NYSE: EPB). It will be one of the major pipeline companies in North America, and will be uniquely integrated in the major U.S. supply and market regions. With a planned 2012 annual dividend of \$0.60 per share and a targeted low double-digit dividend growth rate, the new company it is positioned to be a very attractive corporate yield investment.

As a separate publicly traded company, El Paso's E&P business will be po-

sitioned to compete with the industry's leading independent producers. The entity will have more than 10 years of low-risk, repeatable drilling inventory to fuel its future growth. Current positions in the Eagle Ford and Wolfcamp shales and in Altamont Field are expected to provide a profitable and rapidly growing oil production profile.

"We believe that the creation of these two stand-alone public companies will result in significant and sustainable value creation," said Doug Foshee, chairman, president, and chief executive officer of El Paso Corp. "With the completion of what was an \$8-billion pipeline backlog, the elevation of our E&P business to one of the top independent producers, outstanding leadership and employees in each of our businesses, and the accelerated improvement of our

balance sheet, we are ready to take this important step."

El Paso plans to complete a separation by year end with a tax-free spinoff of its E&P company. The planned separation is subject to market, regulatory, tax, final approval by the company's board of directors and other customary conditions.

El Paso said some of the benefits of its separation into stand-alone companies include:

- Greater management focus on distinct business strategies;
- Greater flexibility to grow businesses supported by separate equity currencies;
- Independent capital structures and credit profiles, which provide a lower cost of capital; and
- Improved access to capital markets

## Experts Question Shale-Gas Future... (continued from page 1)

barrel (/bbl), while crude oil on the open market is \$89-100/bbl.

"No one has ever doubted the amount of shale gas in the ground...We've known for years there are thousands and thousands of Tcf (trillion cubic feet) of gas trapped in shale, but the cost wasn't approachable until natural gas prices rose

in the past decade. It was a price effect relative to a cost effect that got everyone excited. The price has now receded."

Because of the increased cost to develop some of the U.S. shale plays, gas prices will increase domestically, and that will give LNG producers an opportunity to increase imports to North America. Nesbitt said that the only way that U.S. gas prices won't increase in the next few years is if shale gas saturates the market to such a degree that it becomes both the marginal and inframarginal source.

It is for these reasons that he also doesn't foresee LNG exports from the U.S. to be very successful. "It is pretty hard to export from a high-cost environment into a low-cost environment," he said.

Kenneth Medlock, Ph.D, deputy director, energy forum, James A. Baker III Institute for Public Policy at Rice Univer-

sity, agreed with Nesbitt's assessment of increased competition for gas. "Eventually the U.S. will be pushed into more costly areas of the shale resource, which will increase competition between shale, LNG and other sources of natural gas."

However, Medlock pointed out that with improvements in technology, the cost to extract gas from some shale plays could be reduced. "What bodes well for the industry is that currently there are [shale] wells that perform very well in the current pricing environment, but then other wells less than a mile away that don't. It is possible that these wells will become economical if technology continues to advance as it has for the last five to 10 years."

Despite increased competition from LNG on a global pricing level, Medlock does not forecast a large increase in LNG imports during the next 20 years. He does

KEY NORTH AMERICAN HUB PRICES	
3:35 PM CST / May 25, 2011	
Gas Hub Name	Current Price
Carthage, TX	4.26
Katy Hub, TX	4.29
Waha Hub, TX	4.22
Henry Hub, LA	4.36
Perryville, LA	4.33
Houston Ship Channel	4.29
Agua Dulce TX	3.99
Opal Hub, Wyo.	4.07
Blance Hub, NM	4.11
Cheyenne Hub, Wyo.	4.11
Chicago Hub	4.45
Ellisburg NE Hub	1.70
New York Hub	4.64
AECO, Alberta	4.10

Source: Bloomberg

anticipate an increase in the 2030s, however, because of declining production from conventional North American plays.

### Demand side possibilities

Both Nesbitt and Medlock doubted that natural gas will be a significant source of domestic transportation fuel. Medlock noted that using compressed natural gas (CNG) as a fuel for internal combustion engines with a 30% efficiency rate would increase domestic demand by 55 billion cubic feet per day (Bcf/d). However, if gas were used in power generation with 90% efficiency to recharge a battery-powered vehicle, demand would be increased by 20 Bcf/d.

“People fail to realize just how big the U.S. transportation system really is. It will require much more than the current supply levels of natural gas to power,” Nesbitt added.

He also noted that on a mobile platform—whether automobiles, airplanes or boats—many Btus are needed, which is why gasoline prices are so high. “The

reason liquid fuels have so much value is because the molecules are so close together and there is so much Btu content. You can’t get nearly as many Btus as close together with natural gas.”

It is for this reason that the current gas-to-oil spread is not unusual. Dating back to 1947, the ratio between gas and oil prices has been in the range of 0.2 and 0.6, with the exception of a short spike in 2001 to 1.0. “The current price ratio is normal. You’re not going to see Btu price parity between crude oil and natural gas.”

The real potential growth for shale gas lies in its use as a fuel for power generation, said both presenters. “There is gas everywhere and the interesting question when it comes to the power generation business is: What else are you going to build?” Nesbitt asked. Gas-fired generation will trump coal, nuclear and renewables going forward.

### Global view

Finally, while shale-gas development activity will remain high in North America,

Medlock does not forecast such growth in other parts of the world, although shale resources exist across the globe.

“One thing we take for granted in North America is market structure. In the U.S., transportation capacity rights are unbundled from the capacity itself.” Outside of North America, save for Australia, that is not the case, and large public monopolies control the markets.

Additionally, independent companies drove the development of shale plays in North America, not the majors. “You couldn’t have this happen outside of North America, where governments try to simulate the market mechanism that worked so well in North America. Governments are not very good at simulating what markets do. That does not bode well for rapid development of shale production outside of North America,” he said.

— Frank Nieto

## Birchcliff Will Double Capacity Of Montney Gas Plant

Birchcliff Energy Ltd., Calgary, plans to expand of its Pouce Coup South Gas Plant, which serves Canada’s Montney tight resource play.

Birchcliff directors have approved the Phase III expansion of the Pouce Coupe South Gas Plant (the PCS Gas Plant) from 60 to 120 MMcf per day of processing capacity. Phase III is scheduled to com-

mence processing natural gas on November 1, 2012. As a result, Birchcliff forecasts its 2012 exit production rate to be between 27,000 and 28,000 barrels of oil equivalent per day.

“We are very excited to be moving ahead with the Phase III expansion which will allow us to further develop the large Montney/Doig natural gas resource base

on our lands in the Pouce Coupe area of Alberta,” says Jeff Tonken, president and chief executive officer. “The PCS Gas Plant will process our Montney/Doig natural gas for more than 30 years and is an essential part of our strategy to control our production and processing facilities and reduce our operating costs.”

## Shell Pushes Forward With Floating LNG Project

The Board of Royal Dutch Shell plc (Shell), The Netherlands, has taken the final investment decision on the Prelude Floating Liquefied Natural Gas (FLNG) Project in Australia (100% Shell), building the

world’s first FLNG facility. Moored far out to sea, some 200 kilometers from the nearest land in Australia, the FLNG facility will produce gas from offshore fields, and liquefy it onboard by cooling.

The decision means that Shell is now ready to start detailed design and construction of what will be the world’s largest floating offshore facility, in a ship yard in South Korea.

Resin Prices					
Market Update – May 27, 2011					
TOTAL OFFERS: 10,487,660 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
PP Copolymer - Inj	1,994,576	0.70	0.76	0.68	0.72
LLDPE - Film	1,989,840	0.86	0.99	0.90	0.94
HDPE - Blow Mold	1,891,656	0.77	0.96	0.84	0.88
LDPE - Film	1,367,288	0.93	0.99	0.92	0.96
HDPE - Inj	922,380	0.73	0.83	0.70	0.74
HMWPE - Film	778,368	0.79	0.86	0.73	0.77
PP Homopolymer - Inj	566,368	0.78	0.83	0.82	0.86
LDPE - Inj	425,000	0.90	0.90	0.88	0.93
GPPS	380,000	1.00	1.00	0.96	1.01
HIPS	88,184	0.78	0.78	0.71	0.75
LLDPE - Inj	84,000	0.77	0.77	0.75	0.79

Source: Plastics Exchange – www.theplasticsexchange.com

From bow to stern, Shell’s FLNG facility will be 488 meters long, and will be the largest floating offshore facility in the world – longer than four soccer fields laid end to end. When fully equipped and with its storage tanks full, it will weigh around 600,000 tonnes – roughly six times as much as the largest aircraft carrier. Some 260,000 tonnes of that weight will consist of steel – around five times more than was used to build the Sydney Harbour Bridge.

“Our innovative FLNG technology will allow us to develop offshore gas fields that otherwise would be too costly to develop,” said Malcolm Brinded, Shell’s Executive Director, Upstream International. “Our decision to go ahead with this project is a true breakthrough for the LNG industry, giving it a significant boost to help meet the world’s growing

demand for the cleanest-burning fossil fuel.”

Brinded continued “FLNG technology is an exciting innovation, complementary to onshore LNG, which can help accelerate the development of gas resources”.

The facility has been designed to withstand the severest cyclones - those of Category 5. Ocean-going LNG carriers will offload liquefied gas, chilled to minus 162 Celsius and shrunk in volume by 600

times, and other products, directly from the facility out at sea for delivery to markets worldwide. Until now, the liquefaction of offshore gas has always involved piping the gas to a land-based plant.

Shell has moved the Prelude FLNG project forward at a rapid pace, with first production of LNG expected some ten years after the gas was discovered. The FLNG facility will tap around 3 trillion cubic feet equivalent of resources contained in Prelude Field, discovered by Shell in 2007.

Some 110,000 barrels of oil equivalent per day of expected production from Prelude should underpin at least 5.3 million tonnes per annum (mtpa) of liquids, comprising 3.6 mtpa of LNG, 1.3 mtpa of condensate and 0.4 mtpa of liquefied petroleum gas. The FLNG facility will stay permanently moored at Prelude Field

for 25 years, and in later development phases should produce from other fields in the area where Shell has an interest.

Ann Pickard, country chair of Shell in Australia, said, “This will be a game changer for the energy industry. We will be deploying this revolutionary technology first in Australian waters, where it will add another dimension to Australia’s already vibrant gas industry.”

“Beyond this, our ambition is to develop more FLNG projects globally. Our design can accommodate a range of gas fields, and our strategic partnership with Technip and Samsung should enable us to apply it progressively faster for future projects,” Brinded added. “We see opportunities around the world to work on other FLNG projects with governments, energy companies and customers.”

Shell’s decision to make FLNG a reality culminates more than a decade of research and development. It builds on the company’s extensive know-how in offshore production, gas liquefaction and LNG shipping.

The Prelude FLNG project will be the first Australian upstream project in which Shell is the operator. Australia is one of Shell’s key growth provinces, and Shell’s upstream investment in Australia should reach some \$30 billion over the next five years, including the Prelude and Gorgon projects, and on-going exploration and feasibility studies in the country.

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

because of a strong increase in petrochemical demand for NGLs. This unit is expected to be full when it comes online in Q4 2011. Creel also added that the company recently acquired 1,200 acres in Mont Belvieu, which provides it with increased size for growth.

“It’s opportunities [from advantageous pricing] that continue to provide us with linkage and expansion projects across our business lines. We believe these fundamentals will remain strong. Across our businesses in crude, natural gas, NGLs, refined products and petro-

chemicals, we remain disciplined in pursuing projects that integrate well with our existing system of assets,” James Teague, chief operating officer and executive vice president, said.

Teague noted that the petrochemical industry remains strong and validates the

company's belief in this industry's ability to absorb more ethane. He anticipates ethane margins for gas processing to remain robust even with added production from the Rockies, Eagle Ford, Woodford and the Permian Basin. "The primary support for ethane processing margins is coming from petrochemical demand driven by the gas-to-crude spread."

Enterprise's internal forecast shows potential ethane demand increasing an incremental 200,000 to 300,000 b/d by 2015. The only way to meet this demand is for producers to continue to develop rich gas resources and for midstream companies, such as Enterprise, to continue developing new infrastructure to bring these added volumes to market, he said.

Petrochemical demand is not just high for ethane, but also for propane. "Our propane resources and continued demand growth around the world has driven an increased reliance on U.S. propane exports. Our propane export terminal is essentially sold out through the end of 2012 and into 2013," Teague said.

One area that typically isn't discussed as much as it should be is increasing demand, he said. He noted that Enterprise has been involved in helping crackers convert from naphtha cracking to ethane cracking, which has created an increase of 100,000 b/d of ethane used by crackers over naphtha.

The company has also been exporting approximately 36 million barrels per year of propane to markets not served by the U.S. in the past, which is roughly equivalent to 380 million cubic feet per day of natural gas.

This increased demand for incremental exports has supported the company's expansion of this terminal, which will allow for loading up to three vessels at once and increasing the load capacity to more than 10,000 barrels per hour of fully refrigerated propane and more than 13,000 barrels per hour of total NGLs.

"If this expansion had been in place last year and had been full, Enterprise would have been the second largest exporter of propane behind Saudi Arabia," Teague said.

He noted that its operations in the Eagle Ford remain very strong with its initial 600-million-cubic-feet per day natural gas processing plant being fully subscribed. The company has also opened negotiations with producers for the next phase of the plant.

"The Eagle Ford has been a team effort as we have provided our customers with a full spectrum of services including gas gathering and processing, residue takeaway, NGL transportation, fractionation and marketing, and crude oil transportation and marketing," Teague said.

In addition, Enterprise posted a 20% increase in gross operating margins at its NGL pipeline and storage business due to increased long-haul movements at higher tariff rates that went into effect in July 2010.

Officials declined to discuss the company's proposed merger with Duncan Energy Partners.

— Frank Nieto

## NEWS & TRENDS

### Devon Energy Provides Preliminary Report On Cana Plant Severe Weather Damage

Devon Energy Corp., Oklahoma City, Okla., has reported that its Cana gas processing plant in Canadian County, Oklahoma sustained significant damage from a tornado on May 24, 2011. Approximately 36 million cubic feet of natural gas and 2,000 barrels of natural gas liquids per day, net to Devon's interest, are curtailed as a result of the plant outage. In spite of the curtail-

ment, Devon continues to produce approximately 100 million cubic feet per day of natural gas and 5,000 barrels of natural gas liquids per day from the Cana field.

At the time of the incident, the plant had been temporarily shut-in as a precautionary measure. In addition, all plant personnel had been evacuated to on-site storm shelters.

### Cheniere Receives LNG Export Approval From DOE

Cheniere Energy Partners LP, Houston, has reported that on May 20, 2011, its subsidiary, Sabine Pass Liquefaction LLC, received an order from the U.S. Department of Energy (DOE) with authorization

to export domestically produced natural gas from the Sabine Pass LNG terminal as liquefied natural gas (LNG) to any country that has, or in the future develops, the capacity to import LNG and with which

trade is permissible. This order expands upon the authorization Sabine Liquefaction received in September 2010, which authorized the exports of natural gas as LNG to all current and future Free Trade

Agreement countries, and concludes one of the key regulatory requirements necessary for the Sabine Pass liquefaction expansion project.

Under the order, Sabine Liquefaction received long-term, multi-contract authority to export on its own behalf, or as agent for others, up to the equivalent of 803 Bcf per year (approximately 16 million metric tons per annum) of domestically produced natural gas as LNG. The authorization begins either on the date of the first export or five years from the date of issuance of the authorization, whichever is earlier. It is conditioned upon the satisfactory completion of the

FERC review process and upon Sabine Pass starting export operations within seven years of the issuance of the order.

“This concluding authorization by the DOE is a significant milestone for our liquefaction expansion project at Sabine Pass that will transform our terminal into the first bi-directional LNG processing facility capable of importing and exporting LNG. Our terminal, designed with substantial operating flexibility and strategically located on the Gulf of Mexico, will provide customers the option to purchase or sell LNG from and to U.S. markets,” said Charif Souki, Cheniere Partners’ chairman and chief executive.

## Formosa Petrochemicals Shuts Down Naptha Cracker

Formosa Petrochemicals Corp. has pushed back the start-up of its No. 1 naphtha cracker, which was scheduled to come back online on May 16. The shutdown was caused by a May 13 fire at a liquefied petroleum gas (LPG) pipeline in a Mailiao, Taiwan, oil refining and petrochemical complex.

The cracker, with a capacity of 700,000 metric tons, accounted for 24% of the company’s ethylene output. It is expected that Formosa will defer its May/June cargoes from the facility to July.

This shutdown will result in a drop in demand of 43,000 tons of naphtha per week without any LPG input. The No. 1

“This is possible only because of the unique depth of the markets in the Gulf Coast, both on the production and consumption side; with approximately 30 Bcf per day of fully integrated physical supply, pipeline infrastructure, storage, and market delivery capability,” he added. “With the unprecedented growth in unconventional reserves, supply of natural gas continues to outpace demand dramatically. There are currently an estimated 3,500 wells that have been drilled but not completed with the potential to continue to boost production. The U.S. has an opportunity to become a significant supplier in the global energy markets.”

cracker was previously shut down from July 2010 to October 2010 after a fire caused from a leak at a distillation tower that resulted in severe price drops for naphtha in the region.

– Frank Nieto

## Blackwater Midstream To Buy Salisbury, Maryland, Terminal

Blackwater Midstream Corp., Westwego, La., has entered into a Letter of Intent (LOI) to acquire a liquid terminal facility in Salisbury, Maryland, for \$1.6 million. The acquisition is expected to be completed within the third quarter of 2011.

The Salisbury site consists of 177,000 barrels of storage capacity situated on six acres of property located along the Wicomico River. The site is accessible by inland barges and tank trucks. There is a three-bay automated truck loading rack equipped for bottom loading with vapor

controls. In addition, there is ample property within the fence line to expand the capacity at the site. Mike Suder, Blackwater Midstream Corp.’s chief executive, stated, “The Salisbury acquisition is another strategic addition to our business portfolio. This transaction is a continuance of our business plan to acquire and grow under-performing assets by offering exceptional service to our customers while adding shareholder value.”

Frank Marrocco, chief commercial officer of Blackwater Midstream Corp.,

stated, “We are very pleased to have this opportunity to add to the expanding Blackwater Midstream network of liquid storage facilities. We believe that Blackwater can add significant growth to the facility, which serves as an integral component to the petroleum supply chain in the Delmarva region. We will accomplish business growth at the Salisbury terminal by forming strategic partnerships with petroleum refiners and distributors that service this area.”

## Enterprise To Sell 4.45 Million Energy Transfer Equity Common Units

Enterprise Products Partners LP, Houston, (NYSE:EPD) has agreed to sell 4.45 million Energy Transfer Equity LP (NYSE:ETE) common units owned by

an Enterprise subsidiary to certain purchasers. Proceeds of approximately US \$169 million from the sale will be used by Enterprise for general partnership

purposes, including to fund growth capital projects.

Citi acted as sole placement agent for the transaction.

## PIPELINES & TECHNOLOGY

### Buckeye Completes \$85MM Sale Of NGL Pipeline Interests

Buckeye Partners LP, Houston, (NYSE: BPL) has completed the sale of its non-operated interests in West Texas LPG Pipeline LP (WTLPG) to Atlas Pipeline Partners LP, Philadelphia, (NYSE: APL). The previously announced sale con-

sisted of 20% non-operating interest in the WTLPG for total cash consideration of \$85 million.

WTLPG owns a 2,295-mile common-carrier pipeline system that transports NGLs from locations in New Mexico

and Texas to Mont Belvieu, Texas for fractionation.

### Norse Energy Receives Regulatory Approval For Pipeline Sale

Norse Energy Corp. ASA, Lysaker, Norway, has reported that it has received the necessary regulatory approval for the sale of the company's Norse Pipeline LLC and Nornew Energy Supply Inc. (NES) to Appalachian Transportation and Marketing LLC. The transaction will be handled through Norse subsidiary Norse Energy Holdings Inc.

The agreements, executed in February, were subject to approval of the transfer of Norse Pipeline and NES to Appalachian by the New York Public Ser-

vice Commission, and that approval was received on May 19. The sales price of US \$20.7 million will be applied towards repayment of long-term debt of \$4.2 million associated with Norse Pipeline. The net cash to company will be \$16.5 million, before transaction expenses, and that will be used for general corporate purposes. Closing is anticipated to take place on or about May 31, 2011.

"These midstream assets are no longer core to our exploration and production activities in central New York," com-

mented Norse Energy chief executive Mark Dice. "This is part of our strategy to divest non-core assets on favorable terms and reallocate corporate resources toward our core competencies in exploration and production."

The chief executive of Appalachian is Oivind Risberg, former Norse Energy chief executive.

### Capstone Will Supply Microturbines For Kazakhstan Pipeline

Capstone Turbine Corp., Chatsworth, Calif., reported that it recently secured an order from its Russian distributor BPC Engineering for 60 C30 microturbine units to be installed along a new pipeline being built in Kazakhstan.

The 1,475-kilometer Beineu--Bozoy-Shymkent gas pipeline will ship gas from western Kazak fields to the southern regions of the country. The pipeline will run along the Mangystau, Aktobe, Kyzylorda and South Kazakhstan regions and will interconnect with the first stage of the Kazakhstan--China Pipeline, which runs 1,300 kilometers from the Uzbekistan/Kazakhstan border to Khorgos, China.

Construction of the pipeline will be implemented in two phases. The first phase will involve the construction of 1,164 kilometers of the linear part of the pipeline from Bozoy to Shymkent, and a

compressor station near Bozoy. Completion is slated in early 2012. The second stage, anticipated to be completed in 2014--15, consists of 311 kilometers of pipeline from Beineu to Bozoy, and a compressor station in Karaozek. An additional 26 branches will be constructed from the mainline during the first and second phases of the project to supply settlements along the pipeline route.

"The gas industry in Kazakhstan is young with large reserves of natural gas which should allow Kazakhstan within a relatively short term period of time to change the structure of the country's fuel mix in favor of gas," stated Alexander Skorokhodov, chief executive of BPC Engineering.

"BPC has installed Capstone microturbines at remote sites all over Russia for years because the microturbines are

highly reliable and provide customers a low total cost of ownership," said Jim Crouse, Capstone's executive vice president of sales and marketing. "BPC has a stellar track record within the oil and gas markets and continues to be one of Capstone's largest and most successful distributors."

"A growing number of oil and gas producers around the world are selecting Capstone microturbines for prime power, as well as combined heat and power applications," stated Darren Jamison, Capstone's president and chief executive. "Within the past year, we've received a record number of orders from oil and gas companies both in the U.S. shale market and abroad for wellhead sites, compressor stations and offshore oil platforms."



## NGL PRICES

### Ethane Prices Expected To Rebound In June

Natural gas liquid (NGL) prices were mostly down for the week of May 18, the third consecutive week prices had decreased at both Mont Belvieu and Conway as ethylene production has dropped off due to plant outages. However, these outages are not related to flooding of the Mississippi River, according to various sources.

En\*Vantage reported that it had revised its ethane cracking in the month of May to 920,000 barrels per day (b/d) from 930,000 b/d, not because of any feedstock shift away from ethane, but because of the number of ethylene plant outages.

These outages include LyondellBasell's OP-2 cracker in Channelview, Texas, that is currently undergoing a planned 60-day turnaround that is expected to last until June, and Flint Hills Resources' Port Arthur, Texas cracker that was taken offline due to a fire this week. It will be down for at least a week.

"The implications are that we could see ethane inventories dip below 20 million barrels with days of supply at 20, which would signify a tight market," the company said.

However, En\*Vantage anticipates ethane cracking to strongly rebound next month, with cracking possibly reaching 980,000 b/d if all of the ethylene plants offline come back.

While the industry awaits the positive effects on prices that such a tightening would have, it saw ethane prices fall below average prices from last month. The Mont Belvieu price for the week of May 18 was down 1% to 73¢ while the Conway price also dropped 1% to 51¢.

Propane prices managed to largely hold firm due to continued tightness in that market, as supplies remain at five-year lows. Levels were more than 8 million barrels below the average five-year inventory level. The Mont Belvieu price was down 1% to \$1.50, the lowest price at the hub in a month. Meanwhile, the Conway price was down slightly to \$1.40.

Mont Belvieu butane prices also managed to hold firm the week of May 18, as they were at \$1.88 due to that hub's closer relationship to international prices. Butane supplies are tightening in markets internationally, which had a somewhat positive impact on the Mont Belvieu price. However, the Conway price dropped 2% to \$1.72, the lowest price at the hub since the week of April 13 when it was \$1.70.

Isobutane prices had the largest drop at both hubs due to decreased crude oil prices. This time of year, isobutene demand

NGL PRICES						
Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
May 18 - 24, '11	73.18	150.16	187.47	201.32	241.48	\$60.74
May 11 - 17, '11	74.21	151.30	186.96	204.88	251.77	\$61.80
May 4 - 10, '11	82.08	153.44	191.03	208.00	260.80	\$64.18
April 27 - May 3, '11	83.46	158.38	199.94	210.30	268.58	\$66.04
April '11	75.74	144.44	189.72	203.15	256.33	\$61.63
March '11	68.59	139.76	181.80	192.01	243.97	\$58.42
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
May 19 - 25, '10	50.94	101.28	132.20	147.04	172.75	\$42.49
Conway, Group 140	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
May 18 - 24, '11	50.98	140.62	171.98	188.57	230.44	\$54.80
May 11 - 17, '11	52.18	141.38	174.90	200.00	233.00	\$55.72
May 4 - 10, '11	57.08	143.34	176.33	199.00	249.25	\$57.91
April 27 - May 3, '11	56.23	146.30	183.33	199.00	258.13	\$59.09
April '11	54.31	134.59	175.54	199.58	246.21	\$56.18
March '11	50.44	129.33	169.43	190.30	244.91	\$54.26
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
May 19 - 25, '10	27.94	97.32	118.30	136.00	156.05	\$36.60

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

is strongly linked to crude due to its use in alkylate for summer-grade gasoline. The Mont Belvieu price fell 2% to \$2.01, the hub's lowest price since it was \$1.99 the week of March 30. The Conway price tumbled even further, as it was down 5% to \$1.89, its lowest price since it was \$1.86 the week of March 16.

The NGL with the closest relationship to crude, C<sub>5+</sub>, had the largest drop in price at Mont Belvieu. For the week of May 18, C<sub>5+</sub> fell 4% to \$2.42, which was the hub's lowest price since it was \$2.39 the week of March 16. The Conway price had a stronger performance as it was down 1% from the prior week. While the drop in value wasn't as deep as at Mont Belvieu, the \$2.30 price was the lowest at the hub since it was \$2.25 the week of February 16.

— Frank Nieto

## FRAC SPREAD

### Frac Spread Margins Down Across The Board

The continuing decrease in natural gas liquid (NGL) prices combined with the strong improvement in natural-gas feedstock prices at both Mont Belvieu and Conway resulted in frac spread margins falling across the board.

Natural gas prices rose 5% at both hubs after seemingly bottoming out the previous week to approximately \$4 per million Btu (/MMBtu). The Conway price increased to \$4.23/MMBtu, its highest price since the beginning of May. The Mont Belvieu price increased to \$4.33/MMBtu, which was also its highest price since the beginning of the month.

The largest decreases were felt at Conway with ethane and isobutane suffering the largest drops in margin at 10% and 8%, respectively. Ethane and isobutane margins also had the largest margin decreases at Mont Belvieu, as they were down 5% and 6%, respectively.

The theoretical NGL barrel price was down 2% at both hubs the week of May 18. The Conway theoretical barrel price was \$54.80 per barrel (/bbl) with a 4% drop in margin to \$39.34/bbl while the Mont Belvieu price was down to \$60.74/bbl with a 4% drop in margin to \$44.92/bbl.

The most profitable NGL to make at both hubs remained C<sub>5+</sub> despite its continued loss in value due to decreases in crude oil prices. The frac spread at Conway was \$1.84 per

gallon (/gal) while the Mont Belvieu frac spread was \$1.94/gal. This was followed, in order, by isobutane at \$1.46/gal at Conway and \$1.58/gal at Mont Belvieu; butane at \$1.28/gal at Conway and \$1.43/gal at Mont Belvieu; propane at \$1.02/gal at Conway and \$1.11/gal at Mont Belvieu; and ethane at 23¢/gal at Conway and 45¢/gal at Mont Belvieu.

Natural gas in storage for the week of May 20, the most recent data available from the Energy Information Administration, increased 105 billion cubic feet to 2.024 trillion cubic feet (Tcf) from 1.919 Tcf. This was 10% below the 2.254 Tcf figure posted last year at the same time and 1% below the five-year average of 2.050 Tcf.

Inventory levels may continue to remain this low given the forecast for the next week from the National Weather Service, which is calling for increased cooling degree days. The forecast includes warmer than normal weather throughout a large portion of the country with the Midwest in particular expected to experience hot weather for late spring. The Northeast and New England are also expected to experience warmer than normal weather along with much of the Southeast and Gulf Coast. The forecast for the West Coast is calling for cooler than normal weather.

— Frank Nieto

Current Frac Spread (Cents/Gal)				
MAY 26, 2011	Conway	Change from Start of Month	Mont Belvieu	Start of Month
Ethane	50.98		73.18	
Shrink	28.04		28.71	
Margin	22.94	-9.92%	44.47	-5.30%
Propane	140.62		150.16	
Shrink	38.75		39.66	
Margin	101.87	-2.48%	110.50	-2.78%
Normal Butane	171.98		187.47	
Shrink	43.87		44.90	
Margin	128.11	-3.75%	142.57	-1.23%
Iso-Butane	188.57		201.32	
Shrink	42.13		43.13	
Margin	146.44	-8.40%	158.19	-3.51%
Pentane+	230.44		241.48	
Shrink	46.91		48.02	
Margin	183.53	-2.54%	193.46	-6.17%
NGL \$/Bbl	54.80	-1.65%	60.74	-1.72%
Shrink	15.45		15.82	
Margin	39.34	-4.03%	44.92	-3.99%
Gas (\$/mmBtu)	4.23	4.96%	4.33	5.35%
Gross Bbl Margin (in cents/gal)	90.44	-4.05%	104.81	-3.93%
NGL Value in \$/mmBtu				
Ethane	2.81	-2.30%	4.03	-1.39%
Propane	4.88	-0.54%	5.21	-0.75%
Normal Butane	1.86	-1.67%	2.02	0.27%
Iso-Butane	1.17	-5.72%	1.25	-1.74%
Pentane+	2.97	-1.10%	3.11	-4.09%
Total Barrel Value in \$/mmbtu	13.69	-1.64%	15.63	-1.55%
Margin	9.46	-4.33%	11.30	-3.96%

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

**SNAPSHOT**

**ANR Pipeline: One Of The Largest Interstate Gas Systems In U.S.**

The ANR pipeline, owned by TransCanada Corp., delivers gas from Texas, the Oklahoma panhandle region, and Louisiana to the Midwest and Great Lakes region. With 6 billion cubic feet per day of system capacity (Bcf/d), the pipeline has two legs, one from Texas and the other from Louisiana, which meet near Chicago, according to Hart Energy Mapping and Data Services. TransCanada acquired the pipeline from El Paso Corp. in February 2007.

One of the largest interstate natural gas pipeline systems in the U.S., the pipeline runs a total of 9,600 miles. It has 75 compressor stations and 200 Bcf of seasonal storage, according to Hart Energy Mapping and Data Services.

Michigan Consolidated Gas Co. (ETS) is its highest transport customer with 575,000 dekatherms per day (Dth/d) of capacity; followed by ExxonMobil Gas & Power Marketing Co. with 260,000 Dth/d. The rest of the top 10 are Michigan Consolidated Gas Co. (FTS1) with 215,000 Dth/d; Shell Energy North America (US) with 157,000 Dth/d; ConocoPhillips Co. with 152,000 Dth/d; Wisconsin Public Service Corp. with 141,000 Dth/d; DPL Energy, LLC, with 140,000 Dth/d; BP Energy Co. with 130,000 Dth/d; EDF Trading North America, LLC, with 122,000 Dth/d; and Wisconsin Power & Light Co. with 121,000 Dth/d.

The Top Five storage customers on the ANR pipeline are EDF Trading North America, LLC, with 22.48 Bcf; Tenaska Gas Storage, LLC, with 15.49 Bcf; Centra Gas Manitoba Inc. with 14.70 Bcf; J. Aron & Co. with 12.03 Bcf; and Wisconsin Gas, LLC, with 8.48 Bcf.

Its top receipt point is at ANRPL Storage Facilities followed by St. John (W-E) - CFTP and Southwest Mainline. Its top

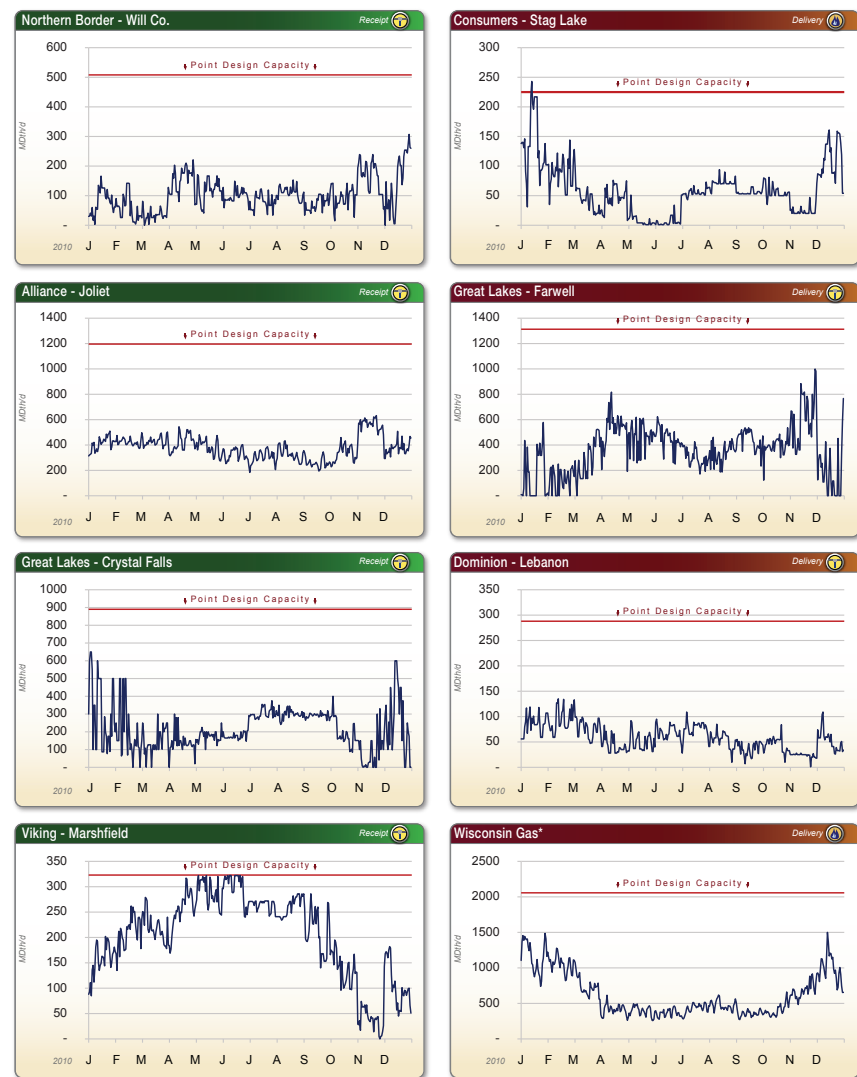
**ANR Pipeline Company - Pipeline Statistics**

General Information			FERC Code: 048	
Owner:	TransCanada	System Capacity:	6 Bcf/d	
Operator:	ANR Pipeline Company	Seasonal Storage:	200 Bcf	
Miles of Pipeline:	9,600	Compressor Stations:	75	

**Top 10 Transport Customers**

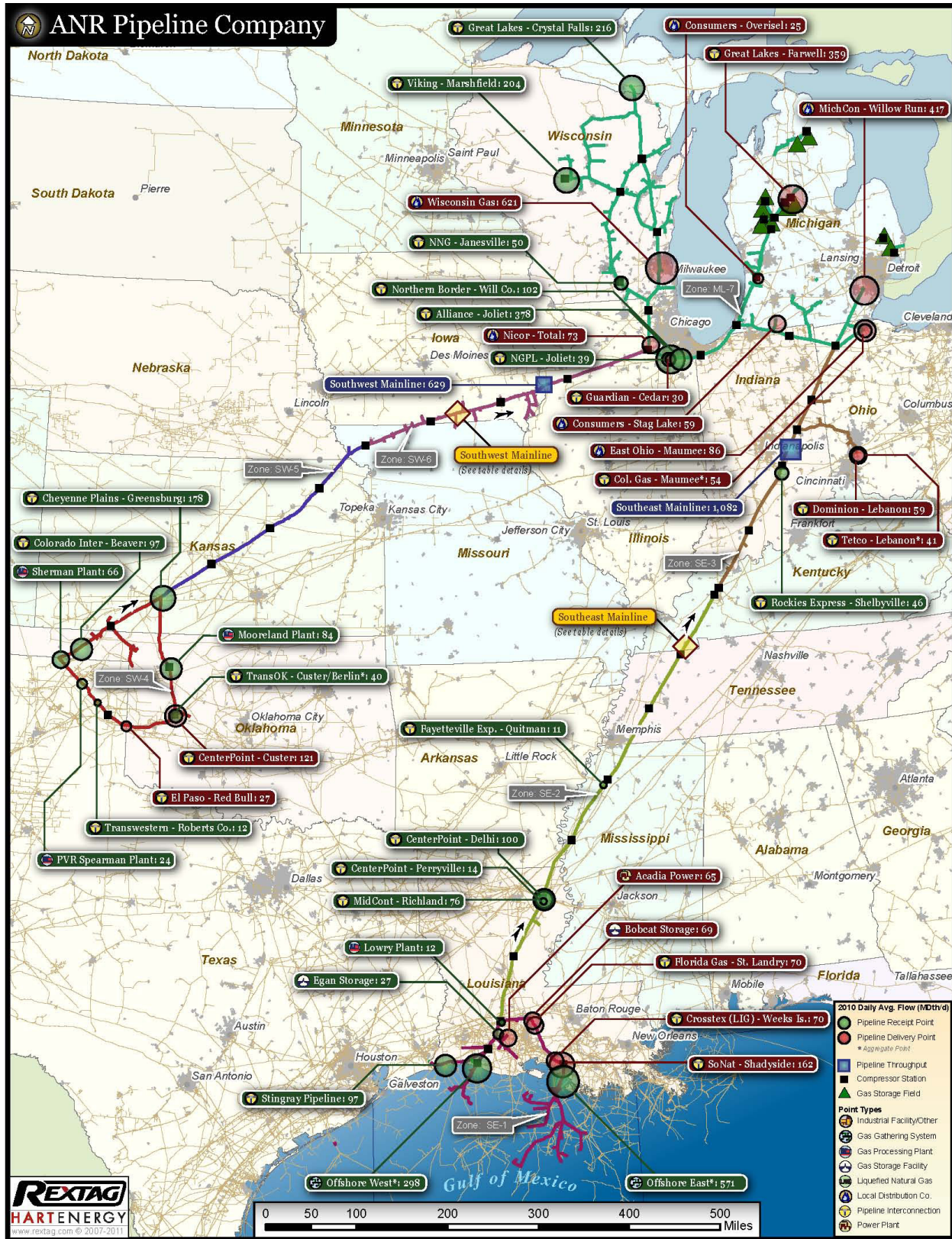
Top 10 Transport Customers			Capacity (MDth/d)		
Rate	Customer Name	Capacity	Rate	Customer Name	Capacity
ETS	Michigan Consolidated Gas Company	575	FTS1	Wisconsin Public Service Corporation	141
PTS2	Exxonmobil Gas & Power Marketing Co.	260	FTS1	DPL Energy, LLC	140
FTS1	Michigan Consolidated Gas Company	215	PTS2	BP Energy Company	130
FTS1	Shell Energy North America (US), L.P.	157	FTS1	EDF Trading North America, LLC	122
FTS1	Conocophillips Company	152	ETS	Wisconsin Power & Light Company	121

**ANR Pipeline Company - Major Receipt & Delivery Points**



Source: Hart Energy Mapping and Data Services

delivery point is Wisconsin, following by SE2A/B-DEL (CAPGRP) and MLN (South End), according to Hart Energy Mapping and Data Services. – **Rebecca Torrellas**



## BECOME A MEMBER OF **MIDSTREAM.com** *Business*

### MEMBERSHIP INCLUDES

- Complete access to prices & markets including crude oil, natural gas, NGL prices, frac spread, and petrochemical prices.
- Weekly analysis and updates in the *Midstream Monitor* PDF newsletter.
- Subscription to *Midstream Business*, a monthly midstream magazine.



[www.midstreambusiness.com/membership](http://www.midstreambusiness.com/membership)

### Contact Information:

**FRANK NIETO** Editor  
[fnieto@hartenergy.com](mailto:fnieto@hartenergy.com)

**REBECCA TORRELLAS**  
 Online News Editor  
[rtorrellas@hartenergy.com](mailto:rtorrellas@hartenergy.com)



### HART ENERGY

1616 S. Voss, Suite 1000 • Houston TX 77057-2627 • USA  
[www.hartenergy.com](http://www.hartenergy.com) | [www.midstreambusiness.com](http://www.midstreambusiness.com)

Midstream Monitor is published weekly by Hart Energy and is included with a premium subscription to [midstreambusiness.com](http://midstreambusiness.com). Premium subscriptions are \$995 per year.

Copyright 2011. All rights reserved. Reproduction of this newsletter, in whole or in part, without prior written consent of Hart Energy is prohibited. Federal copyright law prohibits unauthorized reproduction by any means and imposes fines up to \$100,000 for violations. Permission to photocopy for internal or personal use is granted by Hart Energy provided that the appropriate fee is paid directly to Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. Phone: 978-750-8400; Fax 978-646-8600; E-mail: [info@copyright.com](mailto:info@copyright.com).

**SHARON COCHRAN** Circulation Coordinator  
 E-mail: [scochran@hartenergy.com](mailto:scochran@hartenergy.com)

Mail: Hart Energy Publishing, LP  
 1616 S. Voss. Ste. 1000  
 Houston, TX 77057 USA

### Order Today!

Call: 1-212-608-9078  
 Fax: 1-212-608-9357