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By JOSEPH MARKMAN, Hart Energy

he U.S. Energy Information Administration's (EIA) expectation that coal will overtake natural gas and reclaim its role as the leading fuel for power generation in 2017 is based on sound economics, experts told Hart Energy, but the bragging rights will be fleeting. "Although all of what we've read about for the last several years was that coal is dying and natural gas is taking its place, the reality is that the amount of power in this country produced by

> coal remains very significant," Charles D. McConnell, executive director of Rice University's **Energy and Environment Initiative**, told Hart Energy.

"The other thing that people have not considered is that mere changes of 20 or 30 cents per MMbtu on natural gas dramatically changes the variable cost structure of electricity generated by a natural gas facility, whereas coal prices continue to decrease and coal availability continues to be quite robust because demand is down," he said. "Generators that have a coal option are able to look at coal as a much more economically advantaged option. Without regulatory requirements to shut them down, they're going to run those plants."

ENERGY:







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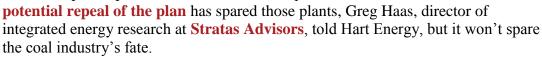
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COAL from Page 1

Those regulatory requirements were detailed in the Obama administration's Clean Power Plan, which would have shut down numerous coal-fired power plants in the U.S. The Trump administration's **review and**



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"It may be that coal overtakes gas for a brief while," Haas said. "But note coal's projected lead for 2017 is only in the tenths of a decimal point of 1% [31.3% vs 31.1%]. That's a very tenuous lead if it actually comes about."

Factors that create a short-term advantage for coal include:

- The relative value of coal (flat to down) compared to gas (rising prices on falling production and rising exports);
- The slow pace of permitting new pipelines to feed new gas turbine power plants either as a result of environmental opposition or a lack of a commissioner's quorum at Federal Energy Regulatory Commission under slow congressional approval of appointees by the Trump administration; and
- A more favorable operating and economic environment for coal power plants given the Trump administration's efforts to boost coal supplies and mining.

Oil And Gas: What's In It For Millennials?

PITTSBURGH—The oil and gas industry is constantly seeking new ways to gain the attention of potential new hires or bring back those let go during the downturn. A common discussion is how to attract—and keep—

millennials (those born from around 1980 to 2000).

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According to a 2016 McKinsey & Co. report, "Millennials will constitute a majority of the U.S. workforce by the early 2020s and have

already started their climb into management and even executive roles. Millennials are no longer a small group of new university graduates. In many oil and gas companies, they occupy managerial roles and are starting to climb into the executive ranks."

At Hart Energy's recent DUG East conference, panelists for the "Service Roundtable: People & Equipment Wanted" session shared their thoughts on how to compete with other industries in recruiting and retaining qualified personnel. Speakers included Bill Debo, operations director of drillbits, at Baker Hughes; Roger Rodiek, vice president of strategic development for the Industrial and Energy Division, at WSP USA; and Courtney McShane, director of business development, at Willbros Group Inc.



Hart Energy

Courtney McShane: "People leave because they need to have stability in their lives."

With so many projects underway, there has been a major increase in demand for people and equipment.

"This is happening after an economic downturn where 400,000 people left the industry, and 400,000 people didn't come back to the industry," said McShane, a millennial herself. "People leave because they need to have stability in their lives." —ARIANA BENAVIDEZ, Hart Energy

FRAC SPREAD

Storms, Increased Demand Could Be On Horizon

By JOSEPH MARKMAN, Hart Energy

The post-July 4 holiday was a sleeper for NGL prices, which mostly moved up slightly along with margins. It might be the calm before the storm, however.

CURRENT FRAC SPREAD (CENTS/GAL)				
JULY 14, 2017	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	19.18		24.10	
Shrink	18.38		19.49	
Margin	0.80	-30.92%	4.61	14.71%
Propane	56.90		60.61	
Shrink	25.39		26.92	
Margin	31.51	1.51%	33.69	7.81%
Normal Butane	70.83		71.73	
Shrink	28.75		30.48	
Margin	42.08	2.91%	41.25	10.69%
Isobutane	81.85		74.05	
Shrink	27.61		29.28	
Margin	54.24	2.76%	44.77	6.28%
Pentane+	100.75		99.84	
Shrink	30.74		32.60	
Margin	70.01	-1.03%	67.24	0.98%
NGL \$/Bbl	22.66	0.04%	23.44	0.40%
Shrink	10.13		10.74	
Margin	12.53	0.38%	12.70	5.84%
Gas (\$/mmBtu)	2.77	-0.39%	2.94	-5.35%
Gross Bbl Margin (in cents/gal)	28.40	0.49%	29.41	6.12%
NGL Val	ue in \$/mmBtu	(Basket Value)		
Ethane	1.06	-2.19%	1.33	-2.07%
Propane	1.98	0.65%	2.10	1.54%
Normal Butane	0.76	1.55%	0.77	3.25%
Isobutane	0.51	1.68%	0.46	1.36%
Pentane+	1.30	-0.84%	1.29	-1.18%
Total Barrel Value in \$/mmbtu	5.60	-0.03%	5.95	0.32%
Margin	2.83	0.32%	3.01	6.55%

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 Midwest region, Mont Belvieu based on Houston region. Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation.

this time in 2016 at Mont Belvieu and 25.2% higher at Conway.

Literally. Colorado State University revised its forecast for the 2017 Atlantic hurricane season and expects above-average activity. Researchers pointed to lessening chances of a significant El Niño event this year, along with unusually warm water in the tropical and subtropical Atlantic.

The university's Tropical Meteorology Project estimates for 2017 are:

- Eight hurricanes (median is 6.5);
- 12 named storms (median is 12);
- 66 named storm days (median is 60.1);
- 35 hurricane days (median is 21.3);
- Three major (category 3-4-5) hurricanes (median is 2.0); and
- Seven major hurricane days (median is 3.9).

Chances of a major hurricane making landfall

in the U.S. are up 20% over the long-term (1981-2010) average, the university's researchers said. And if you're skeptical about



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what land-lubber researchers know about hurricanes, the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce echoes that forecast.

What it means, **En*Vantage** said, is a healthy power demand for the Lower 48 this summer, one that is in line with the firm's natural gas storage models for the near term.

slightly at the Mont Belvieu, Texas, and Conway, Kan., hubs. However, propane was 23.5% higher than its price at

Export margins to Europe and Asia have been tight and En*Vantage expects cargo cancellations and deferrals to continue through the month. U.S. inventories have been rising, too, but despite these factors, propane was priced at 57% of the price of West Texas Intermediate (WTI) crude oil, compared to just 43% at this time last year, En*Vantage said. The analysts explain this as a reflection of the improvement in U.S. propane balances this year.



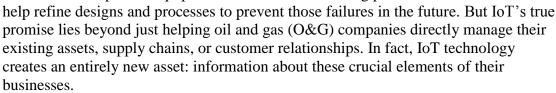
Video: Industrial IoT: From Concept To Reality

Improving O&G Operations with IoT

The Industrial Internet of Things (IIoT) is dramatically shifting how businesses operate. IoT often capitalizes on using software, sensors and devices to predict equipment failures while tracking performance in real time, to



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CIOs are now turning to digital innovation strategies and IoT as a means to reduce costs and increase productivity. More importantly, they are embracing a bottom-up approach by investing in smaller projects that deliver significant value to a focused area of the business with a faster return on investment. —BSQUARE

Video: Jasper Ventures Makes Economic Impact in Whitehouse

The parking lot shows that workers have returned to the former Challenger Tank plant between Whitehouse, Texas and the neighboring city of Troup. Over the past few months the dust has been cleaned up, offices were painted, new flooring went in and Veritas Gas Processing, LP is at work.

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Formerly known as EPC - Engineering, Procurement and Construction, Inc., this family owned business in the oil and gas industry moved their offices to their current Whitehouse location in 2012. A few things have changed in the last year, including the name.

More diversified, **Jasper Ventures** now umbrellas over Veritas Gas Processing, LP, Vulcan Field Construction, LP, Vanguard Processing Solutions, LP and Viking Dew Point Conditioning, LP. Their work and product are still the same but the partnering companies are a better, more sound financial move to ensure continued support and growth.

The Jasper family name began with Jon Jasper whose engineering mind created the company some 25 years ago. Now two of his three children play key roles in the company's future. —JASPER VENTURES

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