

The Official Publication of the Power & Communication Contractors Association



PCCCA

Journal

1st Quarter 2015



PCCA President Steve Sellenriek

Inside

- Nimble by Nature: The 2015 Utility Outlook
- FMI Warns Craft Labor Shortage May Slow Construction
- FERC Plans Conferences Focused on EPA's Clean Power Plan
- FCC Finds U.S. Broadband Deployment Not Keeping Pace, Updates Broadband Speed Benchmark

BUILDING. TOGETHER.

YOUR
DIRECTIONS.

FOLLOWED.



Building your construction business together. Your business keeps the world moving forward. And to meet deadlines, the right equipment is a plus. So when guys like you gave us direction on our K-Series Dozers, we were all ears. You wanted more visibility to the blade. We saw to it. Reduced sound and vibration? We heard you loud and clear. And when you demanded more uptime and productivity, we delivered Ultimate Uptime featuring John Deere WorkSight™ and integrated grade control options, including a Topcon 3D-MC² system installed at the factory. To find out more about K-Series Dozers, contact your dealer or visit our website.



JOHN DEERE

JohnDeere.com/dozers

A VERMEER DRILL IS UP FOR GRABS AT ICUEE 2015

WANTED: ULTIMATE CREW

REWARD:
D24x40
SERIES II
— FOR 12 MONTHS

NAVIGATOR
NATION



**TELL US WHY YOU SHOULD BE NAMED NAVIGATOR NATION'S
ULTIMATE CREW FOR YOUR CHANCE TO WIN AT ICUEE 2015.**

Are you part of a tough, reliable team that knows what it takes to get work done — no matter the job, the challenges or the conditions? Tell us what makes you the best, and your crew could win the use of a heavy-duty, hard-working Vermeer D24x40 Series II Navigator® horizontal directional drill for 12 months. **Enter at NavigatorNation.com**

Vermeer



**EQUIPPED TO
DO MORE.™**

NO PURCHASE OR PAYMENT OF ANY KIND IS NECESSARY TO ENTER OR WIN. Contest subject in all respects to the complete Official Rules available online at NavigatorNation.com. Contest is open to legal residents of any of the United States and the District of Columbia and Puerto Rico, and Canada (except Quebec) who are at least 21 years of age at the time of entry. Contest entry period begins at 12:00 a.m. Central Time (CT) on 1/5/15 and ends at 11:59 p.m. on 4/30/15. Void in Quebec and where prohibited. Sponsor: Vermeer Manufacturing Company, 1210 East Vermeer Road, Pella, IA 50219.

Vermeer, the Vermeer logo, Equipped to Do More and Navigator are trademarks of Vermeer Manufacturing Company in the U.S. and/or other countries.
© 2015 Vermeer Corporation. All Rights Reserved.

Safety is just a word
until you design
**products
that deliver it**

Meet S+R's new series of
**Distribution and Transmission Pullers
and Tensioners that do just that**

PT-3500
Puller/Tensioner

PT-1400X
Puller



Get the Competitive Edge

*The Most
Advanced
Stringing
Equipment
Available*

- 1** Variable Force Select™ lets you manage the pulling force under program control, safely limiting machine use.
- 2** Digitally record pulling and tensioning history.
- 3** Hydraulic-powered drive systems for maximum control.
- 4** Simple joystick operation with all digital displays ensures fast operator proficiency.
- 5** Keep your operators alert, focused, and in communication all day....thanks to our industry first, fully environmental, super quiet, Safe-Zone™ Cab system.
- 6** Industry first video training on any web enabled smart phone or iPad.
- 7** Service Strike Force™ offering on-site factory service.

PT-7500 Puller/Tensioner



WHERE VISION MEETS VALUE.

KENNY^{*}
CONSTRUCTION COMPANY

has been acquired by

GRANITE

R-S-H^{*}

has been acquired by

RSH
ENERGY

J.L. Malone^{*}
& Associates, LLC

has been acquired by

TEAM
FISHEL

MR^{*}
a subsidiary of
Southwest Gas Corporation

has acquired

LINK
LINE

*Represented by FMI Capital Advisors

FMI Capital Advisors, a subsidiary of FMI Corporation, is the leading investment banking firm exclusively serving the Engineering and Construction industry. With over 650 completed transactions, our industry focus enables us to provide our clients with valuable insight and advice. Clients gain access to our unparalleled network of industry contacts and relationships, deep market knowledge and technical expertise, based on decades of experience.



W. Chris Daum | 919.785.9264 | CDaum@fminet.com

WWW.FMINET.COM

Officer Directors

President Steve Sellenriek <i>Sellenriek Construction</i>	2nd Vice President James Dillahunty <i>Henkels & McCoy, Inc.</i>
President-Elect Timothy D. Killoren <i>TelCom Construction</i>	Treasurer Larry Pribyl <i>MP Nexlevel, LLC</i>
1st Vice President Todd Myers <i>Kenneth G. Myers Construction</i>	Secretary David Aubrey <i>Okay Construction</i>

Board of Directors

Garrett Akin <i>Brooks Construction</i>	Jerrod Henschel <i>Michels Corporation</i>
Craig Amerine <i>Amerine Utilities Construction, Inc.</i>	Chase Lapcinski <i>Push, Inc.</i>
Glen Amerine <i>Amerine Utilities Construction, Inc.</i>	Dan Levac <i>Preformed Line Products</i>
John Audi <i>MasTec North America, Inc.</i>	Tommy Muse <i>Aubrey Silvey Enterprises, Inc.</i>
Robert Breeden <i>ElectriCom, Inc.</i>	Rob Pribyl <i>MP Nexlevel, LLC</i>
Ed Campbell <i>Henkels & McCoy, Inc.</i>	Jameson Ringger <i>NESCO, LLC</i>
Marty Ferguson <i>FS3, Inc.</i>	Heath Sellenriek <i>Sellenriek Construction</i>
John Fluharty <i>Mears Group, Inc.</i>	Don Stephens <i>Tjader & Highstrom</i>
Matthew Gabrielse <i>Gabe's Construction Co., Inc.</i>	Lindsley Thulin <i>Michels Corporation</i>
John Hale <i>John Deere</i>	

Publication Staff

Publisher Timothy Wagner	Photography Steven Purcell
Editor Michael Ancell	Information Technology Greg Smela
Advertising Sales Stacy Bowdring	Accounting James Wagner
Advertising Sales Dana Gilbertson	



Nimble by Nature: The 2015 Utility Outlook

11

By Mark Bridgers, Nate Scott, and David Shipley

In an environment that will exhibit disruption and change, being nimble is a necessity. Those leaders who adapt to change and are nimble in the coming decade will thrive. Continuum Advisory Group's 2015 utility outlook provides a comprehensive look into the utility markets, including electric transmission & distribution, gas/liquid transmission & distribution, and communication.

PCCA President Steve Sellenriek: Good Times, Hard Work, Civic Pride

19

People who work with PCCA President Steve Sellenriek on a job or on association business know that he's a sharp guy who's full of great ideas, but he's also a good listener and open-minded to other people's ideas. He's a hard worker, a straight shooter, and a consensus builder. And once you get to know him a little better, you learn that he cares deeply about his family, his community, and the industry in which he has spent most of his life.

News Briefs	9
Power News	25
Telecom News	31
Safety News	36
Safety Watch <i>By Phillip Metcalf</i>	37
New PCCA Members	46
Industry Calendar	46
Advertiser Index	46

**ROCK-CRUSHING POWER.
ROCK-SOLID RELIABILITY.**



▶ **ALSO CHECK OUT THE NEW JT60.
SEE YOUR LOCAL DEALER FOR DETAILS.**



You wanted to drill and steer simultaneously, so we invented the two-pipe, patented All Terrain drilling system more than a decade ago. You wanted reliability, so we gave you years of proven performance with the JT4020 All Terrain. Now you want more. Introducing the new JT60 All Terrain: reliable electronics, a durable frame with proven components and 9,000 ft-lb of rotational torque. Reliable power. Just like you wanted. **WE'RE IN THIS TOGETHER.**

 **Ditch Witch**[®]
ditchwitch.com

©2014 The Charles Machine Works, Inc.

FMI Warns Craft Labor Shortage May Slow Construction

Surveying members of the Construction Personnel Executives Group, FMI recently reported, “24 percent of respondents will be unable to bid more work and 32 percent will experience slow growth if their companies cannot reasonably meet the need for skilled labor and tradespeople.” Top executives at the largest contract firms in the U.S. took part in the survey.

“Overall, there’s an increase needed in skilled trade workers of more than 10 percent throughout the next three to ten years,” said Ken Wilson, director for FMI. One large construction company commented, “Our current hiring forecast shows a need for 8,500 additional craft workers by 2017.”

The top five positions that are expected to be the most difficult to fill are:

1. Operator (heavy equipment)
2. Welder (boilermaker)
3. Carpenter
4. Pipefitter
5. Ironworker (reinforcing)

FMI noted two significant contributing factors to the high demand for craft labor:

1. The shift of the construction workforce to oil and gas related construction. FMI estimates that by 2017 nearly 10 percent of the total U.S. construction workforce will be part of this burgeoning segment of the industry.
2. The number of survey respondents

that plan to increase the amount of work the company self-performs. Currently, surveyed firms self-perform less than 40 percent of construction projects. However, 65 percent either have plans to or are considering plans to increase self-performed projects.

This in-depth look into recruiting and retention of craft labor includes an analysis of the driving factors behind the skilled labor shortage, the most effective recruitment tactics, and how companies are filling the demand for field management of the craft labor force. The report also provides practical counsel on how to develop human resource strategies to improve recruiting and retention rates. ■■

Business Groups Fight NLRB Ambush Election Rule

On February 4, the nationwide Coalition for a Democratic Workplace filed a motion for summary judgment in its challenge to the National Labor Relations Board’s new streamlined elections rule. The rule would shorten time frames for union representation elections from the median of 38 days to as few as 14 days, depriving employers their free speech rights and employees the opportunity to hear from both sides prior to voting and to make a fully informed choice.

The motion was filed jointly with the Chamber of Commerce of the United States of America, the National Association of Manufacturers, the National Retail Federation, and the

Society for Human Resource Management. The Associated Builders and Contractors and the National Federation of Independent Business are also challenging the rule.

CDW legal strategist Joshua Ulman said, “The NLRB’s ‘ambush’ election rule is a flagrant attack on American workers. The Final Rule violates both the spirit and the letter of the National Labor Relations Act and other legal requirements, at the expense of rights that are critical to workplace democracy, such as protected speech and employee free choice.”

Ulman concluded, “The protection of fundamental workplace rights is a critical issue which CDW will continue to fight for on the behalf of employees and employers.” ■■

Wagner Smith

Now Buy Or Rent
Powerline Construction
Equipment ONLINE!

wagnersmithequipment.com



- Full line of heavy-duty stringing equipment
- All equipment comes with operator training videos
- Heavy-duty construction with higher ratings and more safety features
- Backed by 85 years of industry experience

PLUS a Full Line of Stringing Blocks, Tools and Equipment.
For pricing and specs, please visit our website at:
wagnersmithequipment.com



Eastern / Central USA

921 S. Burlison Blvd.,
Burlison, TX 76028
800-666-6567
Fax : (817) 447-8917

Western USA

19020B S.W. Cipole Rd.,
Tualatin, OR 97062
800-444-7064
Fax : (503) 692-0474

E-mail: sales@wagnersmithequipment.com

Wagner
Smith



Equipment Company

Burlison, TX

Dayton, OH

Tualatin, OR

Lawrenceville, IL

Sanford, FL

Phoenix, AZ

Ontario, CA

Nimble by Nature: The 2015 Utility Outlook

By Mark Bridgers, Nate Scott, and David Shipley

In an environment that will exhibit disruption and change, being nimble is a necessity. The concept of being flexible rather than ridged in the face of change is one that for many industry participants is counter intuitive. Bruce Lee might have said it best when he suggested the following: “Empty your mind, be formless. Shapeless, like water. If you put water into a cup, it becomes the cup. You put water into a bottle, and it becomes the bottle. You put it in a teapot, it becomes the teapot. Now, water can flow, or it can crash. Be water, my friend.” Those leaders who adapt to change, and are nimble in the coming decade will thrive, while those that remain ridged will be ground down the way water cuts a canyon.

Nimbleness is a necessity for firms in the overhead and underground utility sector. Continuum Advisory Group’s 2015 utility outlook provides a comprehensive look into the utility markets, including these segments:

- Electric Transmission & Distribution
- Gas/Liquid Transmission & Distribution
- Communication

Exhibit 1 demonstrates that after a period retraction in 2009-2011, the overhead and underground utility markets have returned to more stable growth. This growth is unbal-

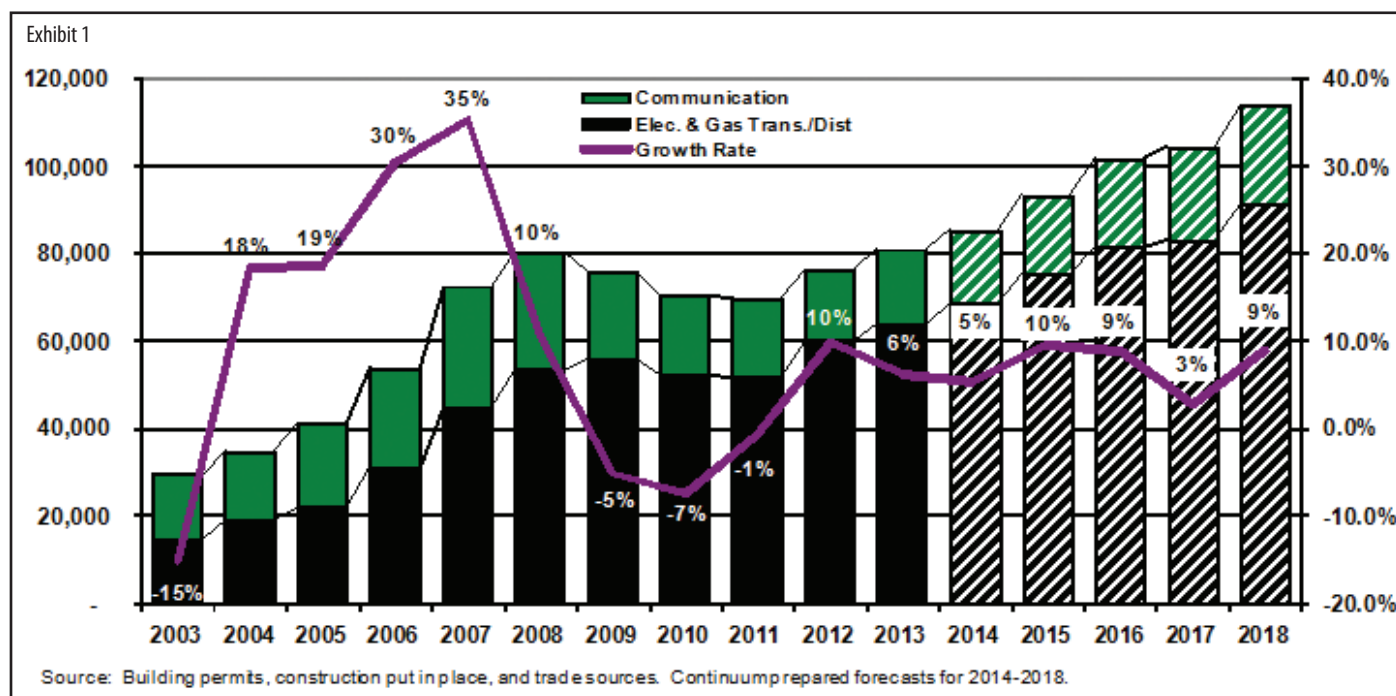
anced however as it is primarily in the Gas and Electric Transmission & Distribution sector and more specifically pipeline construction, with some growth in the Communications sector.

Continuum predicted a short and shallow economic slowdown during the first half of 2015. This is no longer possible, and the earliest that our next down cycle can begin is in 2016. Our current forecast anticipates this slowdown in late 2016 and early 2017, and it will be responsible for the slower spending growth in this period. Overall, the long-term prospects for overhead and underground utility construction are very good, and in the following pages, we describe the drivers of growth for each sector.

Transmission & Distribution— Electric and Gas

Spending Forecast

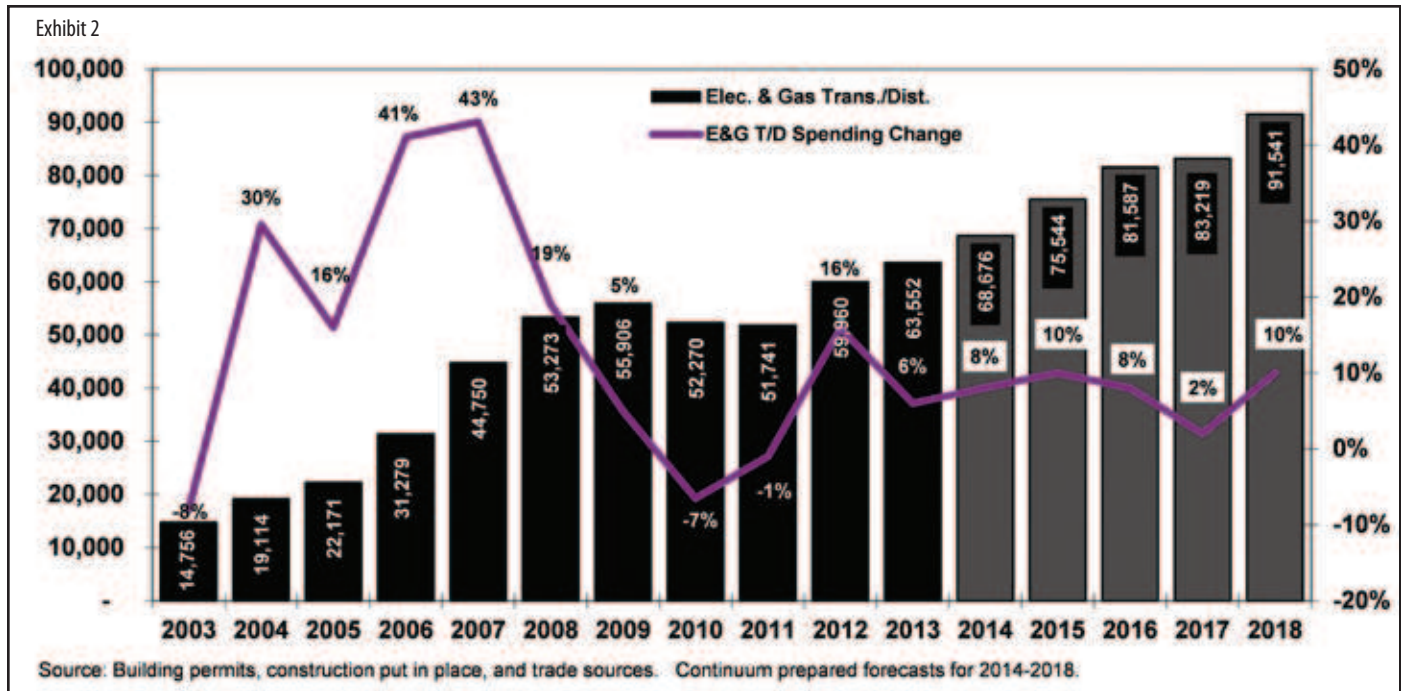
The most viable and growing utility markets are electric and gas transmission & distribution. The long-term prospects are robust. In the 10 years following 2003, spending increased from \$14 to \$63 billion, and Continuum forecasts continued spending growth (Exhibit 2). Traditionally, construction



Continued on page 12

2015 Utility Outlook

Continued from page 11



markets produce 5- to 7-year cycles that coincide with the economy. This market has resisted these cycles because growth is not solely derived from economic factors but a combination of economic and “derived demand” incentive. Derived demand is produced through government regulation, safety, environmental, or other actions. The drivers of electric and gas growth include improving housing starts, tax credits, continued pipeline replacement, pipeline safety regulation, environmental regulation and concerns, distributed generation¹, electric transmission expansion, and the beginning of an industrial and power generation renaissance.

Electric Transmission & Distribution

The most disruptive, long-term driver in the electric T&D market is distributed generation. Why does distributed generation impact the electric T&D segment? Simply put, it will reshape how the entire electric industry operates.

In Exhibit 3, we offer a forecast of the development of the power generation market. This market completed a current wave of activity marked by replacement transmission construction driven by aging infrastructure and bringing remote wind power into the

grid. Distribution spending follows the economic cycle and housing starts, peaking in 2007 and slow since then. By the 2030s, we anticipate a market that is deemphasizing traditional utility-centric power generation and expanding the “smart” distribution and transmission grid infrastructure to serve as a form of “insurance” capacity for sites that produce too much or too little distributed generation power. We see a market similar to the buying of insurance, intended to cut the downside of loss, where sites are protected from producing too little or too much power by purchasing capacity and access to the grid. This transformation will demand a nationwide upgrade of the distribution and transmission grid. Can distributed generation truly drive this type of change?

Exhibit 3

Wave 1 2002-2013	Wave 2 2014-2030	Wave 3 2030-2045	Wave 4 Beyond 2036
Peaking Gas & Wind Power Driven	Coal Retirements & Gas/Renewable Driven	Distributed Generation & Storage Driven	The place of traditional power gen utility?
• \$20 to \$33 billion (+65%)	• \$33 to \$50 billion (+52%)	• \$50 to \$35 billion (-30%)	• Shrinking Spending
<ul style="list-style-type: none"> • Production tax credit fuels wind power construction • Low natural gas prices and energy demand fuel merchant and utility gas fired power generation construction 	<ul style="list-style-type: none"> • Coal retirements from age and regulation accelerate • Replacement of coal is four faceted: 1) stand alone natural gas; 2) renewable augmented by natural gas; 3) energy efficiency; 4) distributed generation 	<ul style="list-style-type: none"> • Nuclear licensing not renewed • Coal retirements continue • Wide spread distributed generation is a reality • Utility scale storage invented and widespread augmenting both renewables and distributed generation • Spending has peaked early in this cycle 	<ul style="list-style-type: none"> • Power generation spending fragmented at residential, commercial, and industrial sites in addition to traditional merchant or utility sites • Traditional power generators punished and atrophying • Utility industry transitions to “insurance” model and focuses on grid management

A future vision of what this widespread replacement of distribution infrastructure might look like can be found in Indiana and Virginia. Indiana's Senate Enrolled Act 560 will drive billions in spending on new transmission and distribution lines, new substations, upgrades to existing lines and substations, and replacement of aging poles, transformers, line equipment and other infrastructure. The wording of a portion of the legislation reads, "...the utility may then adjust rates every 6 months, subject to Indiana Utility Regulatory Commission and Indiana Office of Utility Consumer Counselor review, to recover 80 percent of the project costs as they are incurred. The remaining 20 percent must be deferred until the utility's next base rate case, which must be filed before the end of the seven-year period. The rate increases—under a new Transmission, Distribution, and Storage System Improvement Charge mechanism—may not exceed two percent of the utility's total annual retail revenues."² In the case of Virginia, state legislation requiring the undergrounding of at-risk electric distribution and transmission infrastructure could result in \$10 billion in spending over the long-term.

In Exhibit 4, an Energy Information Administration study describes the range of possible outcomes for distributed solar generation on buildings alone as significant with anywhere

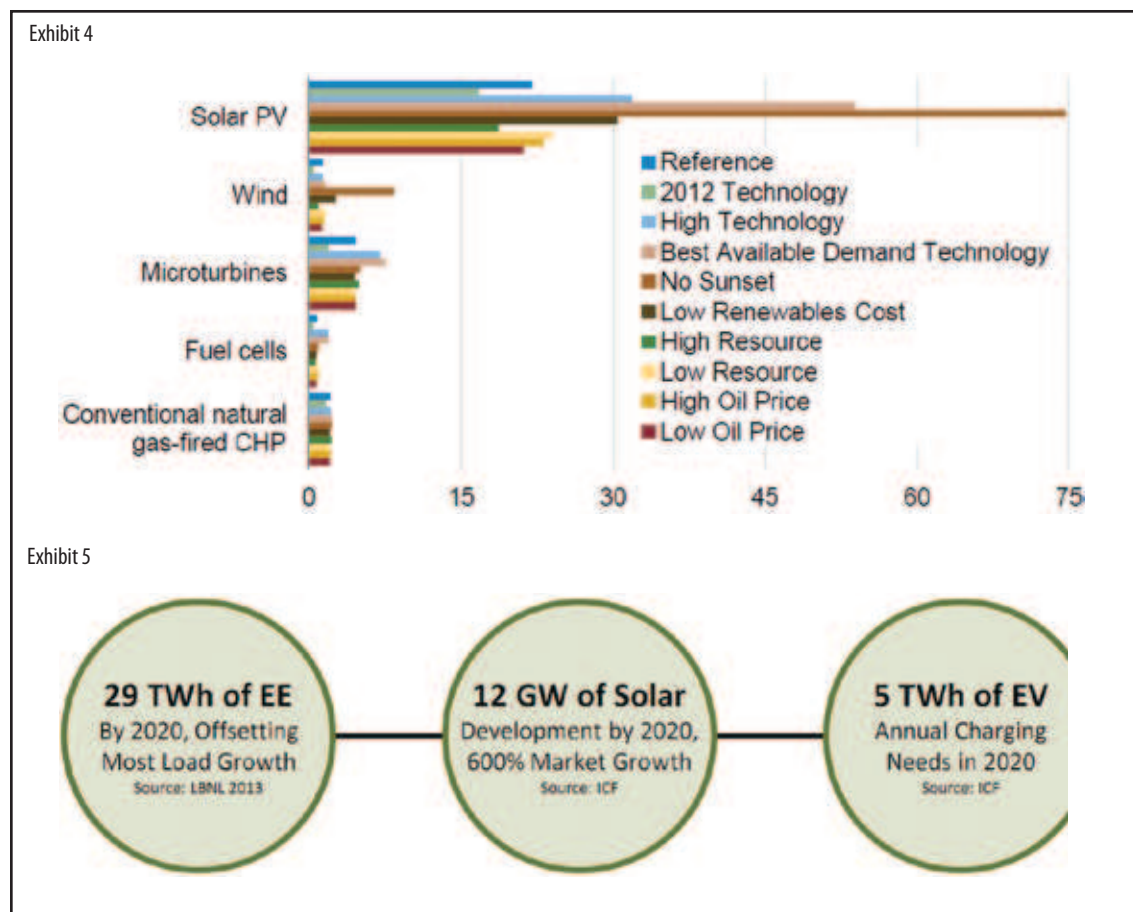
from 17 to 75 gigawatts of generation potential.³ Another view from ICF International in Exhibit 5 forecasts significant distributed energy resources by 2020 driving down the need for traditional generation capacity.⁴ As a frame of reference, U.S. electricity consumption in 2012 was 4,069 terawatt hours⁵, and the typical U.S. home consumes 10,837 kilowatt hours of electricity annually.⁶ The addition of other forms of distributed generation and energy efficiency will further drive disruption.

The communication industry may predict the path of the electric market. Beginning with the breakup of the Bell system in 1982, the industry experienced 30 years of rapid change involving technology, ownership structure, and customer demands. Organizations that were not nimble simply do not exist anymore. This fact should serve as a warning to electric utilities that are just beginning a period of fundamental change and disruption.

Gas and Liquid Transmission & Distribution

Pipeline spending remains on a tear. The primary driver is replacement activity in the first half of our forecast period and subsequently by an industrial and power generation renaissance that will result

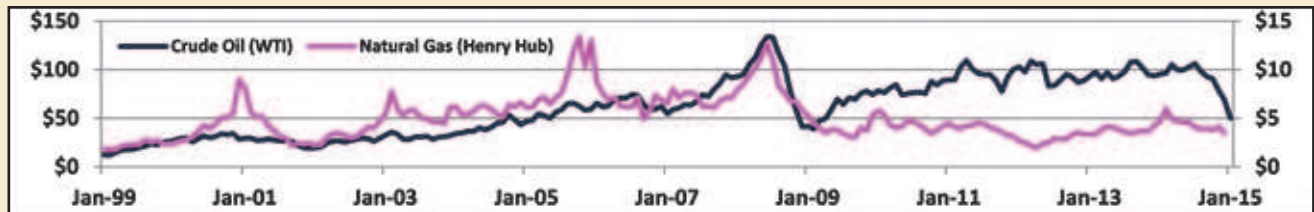
in the strengthening of systems across the country, particularly in regions where shale oil and gas are located. We have received many questions about the falling price of oil; it will have an impact, just not the one envisioned. (See "Falling Oil Price Impact on Utility Construction" on page 14.) This activity will also include new transmission and high pressure distribution spurs. The long-term prospects and spending rational are detailed in Exhibit 6.



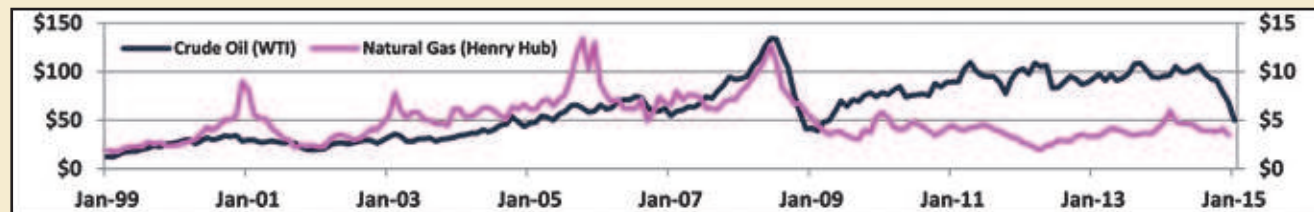
Continued on page 14

Falling Oil Price Impact on Utility Construction

The freefalling oil price caught many observers off guard. Historically, crude oil and natural gas prices have tended to stay in alignment as the imbedded energy content is the defining characteristic. Since 2010, when the pricing of these commodities separated, many observers have anticipated upward volatility in the price of gas to realign it with the price of oil. Few analysts anticipated oil falling to realign with low-cost natural gas.



Falling oil prices impact the competitiveness of U.S. shale oil plays. Example basin breakeven extraction costs demonstrate low competitiveness in the \$40-\$60 range. While the reasons for the freefall in crude oil are highly complex and frankly not currently well explained, there is no doubt that it is creating both positive and negative implications.



Drivers for the falling oil price include the following:

- Low Global Demand: The economic slowdown in Asia and Europe has reduced demand.
- High Supply: Five years of \$90+ oil led to massive investment in exploration and production.
- OPEC Weakness: OPEC’s share of world supply is declining, members have grown fat domestic budgets fueled by high-priced oil, and these countries want to protect their market share. Geo-Political Action: Saudi Arabian opportunity to economically punish Russia, Iran, and Syria without directly harming the U.S. and inflicting moderate and manageable damage to their domestic budget.
- Speculation: It is not clear what role speculators play in the current crude oil price swing, yet there is general agreement that speculative activity continues and is moving prices.

Impacts to shale oil and gas markets along with underground and pipeline contractors include the following:

Market	Most Likely Outcome	Severe Outcome
	18 or Less Month Price Down Cycle	3+ Year Price Down Cycle
Shale Oil	Price floor \$45; recovery to \$80-\$90 in 2016 Exploration slows; Production flattens Exploration spending falls modestly Liquid pipeline construction flattens and is focused on reducing rail traffic Overall economic impact positive; +1% to GDP	Price falls below \$40 and remains below \$60 Exploration stops; Production flattens then falls Exploration spending collapses Liquid pipeline construction spending collapses Overall economic impact uncertain to negative E&P defaults damage capital markets
Shale Gas	Shale gas price remains stable/low Rigs move back to wet gas basins Capital spending is constrained	Same as above Industrial and transportation use flattens Collapse pushes natural gas price down
Contractors	Activity remains replacement and system capacity related Flat transmission market for 2015 & 2016 Limited delay of new large pipeline projects Reduced wage pressure Distribution market remains strong with lower growth rate	Liquid market reduced to integrity work only Gathering contractors enter and disrupt distribution market Rate payer impact hurts distribution spend Postponed distribution spend stresses existing system T&D capacity Loss of workforce limiting growth post-2018 Constrained capital for high risk energy market

nesco's

ADDING HUNDREDS OF



**NEW
UNITS**

NESCO IS PLEASED TO ANNOUNCE WE ARE ADDING HUNDREDS OF NEW UNITS TO OUR EXISTING FLEET!

In addition to the acquisition of Foley Utility Equipment's rental fleet—which added 1-2 year old transmission and distribution units—NESCO has purchased hundreds of new Terex bucket trucks and digger derricks; Manitex cranes; and Hogg & Davis and Sherman + Reilly stringing equipment. The new additions to our fleet mean NESCO truly has everything you need to get the job done!

CONTACT US NOW AND GET WORKING! 800-252-0043 | www.NESCORENTALS.com



2015 Utility Outlook

Continued from page 14

Exhibit 6

Wave 1 2008-2013	Wave 2 2016-2021	Wave 3 2025-2030	Wave 4 Beyond 2031
Trans. Integrity & Dist. Replacement	Industrial & Power Gen Renaissance	Trans. Replacement & Dist. Integrity	The Cliff
• \$31 to \$43 billion (+38%)	• \$43 to \$65 billion (+51%)	• \$65 to \$80 billion (+23%)	• \$80 to \$45 billion (-44%)
<ul style="list-style-type: none"> • Shale gas and oil exploration expansion • Interstate transmission network expansion • TIMP acceleration of activity • Distribution replacement programs start • DIMP plan preparation 	<ul style="list-style-type: none"> • Transmission and high pressure distribution lateral construction • NGL and shale oil transmission system build out – Replacement for rail transport • Distribution replacement programs accelerating • Housing starts accelerating 	<ul style="list-style-type: none"> • Interstate transmission replacement programs accelerating • DIMP acceleration of activity • Early distribution plastics replaced • Rising natural gas prices increase domestic gas production 	<ul style="list-style-type: none"> • Transmission replacement activity slows • 100 years of distribution infrastructure replaced in 20 years • Industrial/Power/Export infrastructure complete – modest to no growth • Housing starts tempered by low population growth

Communication

Spending Forecast

The dominant trend in communication spending, as always, is volatility...the trough in 2003, the peak in 2007, the trough in 2012. We enjoyed a mini spike in spending in 2013, and we are now forecasting growth in spending that is accelerating in 2015 and 2016. The growth in these years is driven by a single factor: competition between Google, AT&T, Verizon, and CenturyLink among others to bring fiber and high-speed service to major cities in the United States. This competition is the sole driver of growth in 2015 and 2016, while the underlying growth rate in spending is below 3 percent. We also anticipate this competition to conclude by 2017, reducing the spending growth rate. Beyond 2018, we anticipate faster spending growth associated with the still undefined 5G technology as well as faster U.S. economy and housing growth that will approach a cyclical peak around 2020 (Exhibit 7).

Communication Trends

The build-out of the 4G infrastructure is nearly complete nationwide and the underlying short-term future for spending growth is related to incremental improvements in capacity. The rejection of the Sprint/T-Mobile merger signals an end

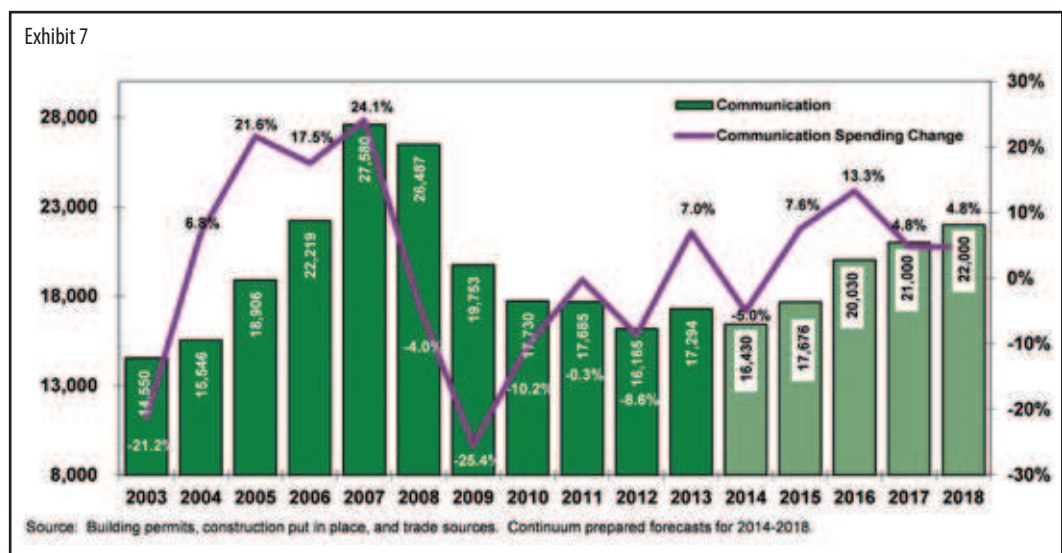
to industry consolidation. This lull in typical activity will not last if Google is effective at sparking competition for faster internet connections. Google is currently rolling out Google Fiber in Kansas City, Austin, and Provo. As of January, a second wave of cities were selected, including Atlanta, Charlotte, Nashville, and Raleigh-Durham. The company has further indicated plans to expand into additional cities. Jason Armstrong, an analyst with Goldman Sachs, estimated that the company could spend approximately \$1.25 billion annually to connect 7.5 million

homes through 2022.⁷

Google Fiber is not really an effort to become a major player in the Internet Service Provider market, but more of an effort to create competition among traditional broadband providers including AT&T, Verizon, and CenturyLink to offer faster service.⁸ The growth we are forecasting in 2015 and 2016 is solely related to Google spending on its fiber program in conjunction with some spending by traditional ISPs in response to the competition.

Beyond 2016, the underlying growth is driven by data management. The Telecommunications Industry Association stated:

“Big data is driving the accelerating investment in the U.S. market. Growing consumer demand for data led to a double-digit increase in spending on wireless telecommunications



equipment last year, as carriers rolled out long-term evolution networks. Meanwhile, specialized services that rely on, and protect, data—including cloud services, machine-to-machine communications, and cybersecurity—all saw large spending gains in 2013. In fact, spending on cybersecurity grew faster in 2013 than in any recent year and has shown significant increases in each of the last three years.”⁹

By 2020, we expect the development of a 5G technology that will again create a construction spending spike focused around helping customers achieve faster speed and greater capacity. Currently, there is no clarity on what this new 5G standard will look like, with many arguing that looking at previous generational transitions for guidance is mistaken. For one, Michael Peeters, CTO of Alcatel-Lucent, recently argued that “the current talk about 5G development was ridiculous because it was focused on the old issues of technologies to increase capacity and bandwidth, whereas the real revolution would come from an architecture which was open, federated and invisible. Yet with many physical network technologies approaching their limits, the real challenge is to enable a host of different platforms to work together as a seamless whole, largely software-controlled and flexible enough to support any usage pattern from low bandwidth smart meters to future generations of super-HD video.”¹⁰

This concept of an ever-growing number of devices—be they consumer, industrial, commercial, government owned, or mobile—operating on a network of networks means the industry is about to get a lot more complicated. Imagine if you will, a Google-branded, driverless vehicle, fueled by batteries or compressed natural gas, traveling in selected cities, utilizing high-speed wireless or fiber optic communication to safely and efficiently navigate to your destination. In this environment, only the nimble will wind their way through these changes and transitions.

Overall Conclusions

The long-term prospects for the overhead and underground utility market are very good. They are, however, unbalanced in sector, geography, and timing. Firms that are ridged, short-sighted, backward looking, and traditional will be cut the way rock is cut by running water. Success in these markets requires that organizations learn to adapt. As water flowing over, under, around, or even through an obstacle, the firms that will thrive in these markets must be nimble by nature. ■■■

Mark Bridgers, Nate Scott, and David Shipley are consultants with Continuum Advisory Group, which provides management consulting, training, and investment banking services to the

worldwide utility and infrastructure construction industry. They can be reached at (919) 345-0403 or mbridgers@continuumag.com and followed on twitter at [@MarkBridgers](https://twitter.com/MarkBridgers). For more information on Continuum, visit www.continuumag.com.

Notes

1. Power produced at the point of consumption. Examples include solar panels installed on the roof of a home or business; diesel fired power generated at a remote or rural setting; wind power generated at a commercial or industrial site; natural gas fired power generated at a commercial or industrial site.
2. Indiana General Assembly, Senate Bill 0560.
3. “Modeling distributed generation in the buildings sectors,” U.S Energy Information Administration. August 2013, pg. 7.
4. Succar, Samir. “Distributed Generation’s Future Impact on the U.S. Capacity Markets.” ICF International. 2014, pg. 1.
5. International Energy Agency (IEA) Key Energy Statistics, 2014, pg. 56.
6. 1 Megawatt (mW) = 1,000 Kilowatts (kW); 1 Gigawatt (gW) = 1,000 Megawatts (mW); 1 Terawatt (tW) = 1,000 Gigawatts (gW).
7. Akerman, Elise, “Google Fiber Could Reach 8 Million Homes By 2022,” Forbes, June 14, 2013.
8. Gustin, Sam. “Google Fiber Issues Public Challenge: Get Up To Speed.” Time.com. September 14, 2012.
9. “2014 ICT Market Review & Forecast,” Telecommunications Industry Association. June 2014.
10. “Alcatel-Lucent techie: Race for ‘5G’ technologies is ‘ridiculous,’” theregister.co.uk. September 25, 2014.



A EVENIA®

Energy and Electrical Construction

3030 24th Avenue South, Moorhead, MN 56560
218.284.9500 aevenia.com

AN  OTTERTAIL COMPANY

**When Reach
is Everything!**

THE

From aerials and bucket trucks to cranes, dozers and tracked digger derricks. Just make the call!

HEAVYWEIGHT IN SALES & RENTALS



**Rentals
Parts
Service
Sales**



Built on family ~ Raised on service

scottpowerline.com • Monroe, LA - 877-388-9269 • McDonough, GA - 877-396-1500



PCCA President Steve Sellenriek: Good Times, Hard Work, Civic Pride

If you meet PCCA President Steve Sellenriek, even briefly, you quickly learn a few things: he likes to have a good time, he's a real people person, and the Cubs suck (well actually, the Cubs SUCK!). Then if you spend some time with Steve, on a job or on some association business, you learn a little bit more. He's a very sharp guy who's full of great ideas, but he's also a good listener and open-minded to other people's ideas. He's a hard worker, a straight shooter, and a consensus builder. And finally, if you really get to know Steve, you learn that he cares deeply about his family, his community, and the industry in which he has spent most of his life.

From the Beginning: Sellenriek Construction

Steve was one-year old in 1979 when his parents, Bob and

Dixie, founded Sellenriek Construction in their hometown of Jonesburg, Mo. Dixie was also pregnant with Steve's brother, Heath, at the time. Bob and Dixie started the telephone construction company with a vision, a used backhoe, a truck, a trencher, and two men. Today, Sellenriek Construction, Inc. operates from five locations and employs more than 100 people.

"We didn't have any health insurance either," Bob remembered. "We had just one little job lined up."

Those tough early days provided some life lessons. "We've seen the other side of life," Bob said. "We've tried to instill in our family that we have friends from all walks of life, not just high-rollers. We'll never be that way."

During the first decade in operation, there were many changes within the company. In 1981, the company placed its first fiber optic cable. In 1986, Sellenriek Construction was incorporated under the laws of the State of Missouri.

Continued on page 20

Steve Sellenriek

Continued from page 19

The company expanded its work areas beyond east-central Missouri, and employment grew to roughly 25 employees. In addition to the company growth, Bob and Dixie now had three children, Steve, Heath, and Joy.

The services Sellenriek Construction could provide grew in 1991 when it purchased its first horizontal directional boring machine. In 1998, the corporation purchased Cable Plow, Inc., in Lewistown, Mo., allowing them to better serve its growing list of clients. In 1998, Steve began working fulltime for the company, followed by Heath a year later.

In 2002, Sellenriek Construction opened its third office, located in Columbia, Mo. The company's services expanded yet again to include electrical distribution and directional boring of large-diameter pipe. In 2003, Joy's future husband, Joe Oden, started working for the company and was followed by Joy in 2004.

During 2009, Sellenriek Construction's 30th year in business, major changes took place. The company opened a construction yard in Warrensburg and a fifth location in Jefferson City, Mo. Sellenriek Construction currently has more than 100 dedicated employees throughout the state of Missouri.

Over the last couple of years, Sellenriek Construction has started working for electric coops, installing fiber-to-the-home systems and being introduced to a different type of client. "The coops are very enjoyable to work for," Steve said. "There's a more intimate feel with the coops. The people involved have part ownership in it; they care about it. For many of them, it's their first telecom job, and they don't have preconceived notions. They're open to new ideas."

Sellenriek Construction remains a family owned and operated company. Bob is president of the corporation and is still very active in the company. Besides being officers, Steve,



Heath, and Joy are actively involved in the company's day-to-day operations.

From its humble beginning through today, Sellenriek Construction has done business with a simple motto: Do what is right for the customer. Proof of this is the fact that the company has many of the same clients for more than 35 years, and the Sellenrieks plan to work for these same clients and more for the next 35.

Joining the Business

Being a family-owned business, Steve got a taste of the construction industry fairly early. He started helping on the job in 1991 at age 12. "Growing up, we worked all summer, and in the winter we worked in the shop," Steve said. "Dad taught us every part of the business as kids--operating the equipment, estimating, insurance, dealing with people, whatever there was to be done."

After high school, Steve went to Linn State Technical

College, where he got a degree as a truck and heavy equipment technician. Right out of Linn, he worked at Mid Missouri Concrete for about 18 months, "turning wrenches, driving a truck, and batching concrete."

Steve said that time was very important because he learned a lot of different skills and had to answer to bosses that weren't part of the family. "It was one of the better things I did," he said. "It was good to see how another operation worked and see how other people handled different situations."

In 1998, Steve went back to work at Sellenriek Construction as an operator.



He brought new skills and experience to the job as well as the Sellenriek penchant for hard work, but there were some growing pains in the new job. “Being the boss’s son means that you constantly have to prove yourself, whether it’s with employees or clients,” Steve said. “People think we’ve had it handed to us.”

Steve’s solution to the situation came directly from his upbringing. “Dad’s theory is that you have to outwork everyone on the jobsite,” he said. “I wanted to outwork everyone. If one crew put in 2,500 feet in a day, my crew had to get 2,800. I’m a competitive person.”

“Nobody is going to outwork us,” he said. “We’ll never ask any of our people to do what we wouldn’t do, and haven’t done, ourselves. Sometimes it surprises the new guys.”

When asked about Steve handling that situation with hard work, Bob said, “Oh yeah, that’s what we do. We like to play, but we work even harder. It was a learning experience for everyone, a growing thing. But he and Heath are outgrowing that. They’ve proven themselves.”

The Importance of Family and Community

Hard work was just one of the values that Bob and Dixie instilled in their children, and Steve credits them for balance in his life. “Mom and Dad taught us early on to trust your moral compass, which means do the right things, help others when you can, be involved with the community, and everything else should work out,” he said. “And it is awesome to be able to work with Heath, Joy, and Joe on a daily basis.”

When asked about what he likes best in the industry, Steve’s first answer is, “the people, from the clients to the employees I work with.” And that, too, is part of his DNA.



With Ron Tag and John Fluharty supervising, Bob, Heath, and Steve provide the muscle.



“It’s an old family tradition,” Bob said. “Without people, you’ve got nothing.”

Steve also mentions two other people when asked about influences in his career: his brother, Heath, and his late uncle Timmy Garrett. Whether it’s on the job, at PCCA, or even at a Cardinals game, “Heath is great at keeping me out of trouble,” Steve said. “I can always bounce an idea off of him and get honest feedback, whether it’s what I want to hear or not.”

“Timmy has been gone seven years, and when I have a problem I still ask myself how would Timmy approach it,” Steve said. “I also still use his line from time to time: ‘If it was easy the Girl Scouts would do it, and we would be selling cookies.’”

Community service is another Sellenriek family tradition and one that they all take very seriously. Steve sits on the board of the Jonesburg-High Hill Fire Protection District, Heath is on the Board of Education for the Montgomery County R-II School District, and Bob has been the mayor of Jonesburg for 22 years, was an alderman before that, and is a charter member of the Optimists Club of Joneburg.

All three belong to the Jonesburg Lions Club to serve their community. And they don’t just write checks or make a few appearances; they actively serve. The whole family helps with the Annual Jonesburg “Worlds” Fair & Homecoming, the Christmas Parade (last year they gave away more than 180 bicycles to local kids), and other events that raise funds for area schools, scholarships, families in need, assistance for retirees, and many other vital community needs. The club spent some \$100,000 over the last several years to improve Lions Park, a fantastic playground for the children of Jonesburg. The Lions Club raises approximately \$100,000 a year for charity, which as Steve said, “isn’t bad for a town of 750 people.”

And though Steve logs lots of hours on the job and in the community, he also carves out some important time for fun. He coaches little league, enjoys spending time at the Lake of the Ozarks, and loves the St. Louis Cardinals (and therefore hates the Chicago Cubs, in case you missed that at the start

Continued on page 22

Steve Sellenriek

Continued from page 21

of the article).

This past summer, the Sellenriek family welcomed the entire PCCA to the Lake of the Ozarks, a place Steve calls his “favorite place on earth,” for the 2014 Mid-Year Meeting. Following a wildly successful meeting with the most attendees in more than a decade and the most meeting sponsors ever, the lake is now one of the association’s favorite places, as well. Everyone enjoyed the lake’s beauty and all the fun activities, and they also benefited from the program Steve helped organize. The educational sessions featured speakers who provide valuable work for Sellenriek Construction and whose lessons were very pertinent to other PCCA members. To close the Mid-Year, the Sellenrieks opened up their lake-front home to the entire membership for a truly memorable all-day party and barbecue.

Bringing New Energy to PCCA

Bob Sellenriek attended his first PCCA convention in 1998 in Santa Barbara, Calif., at the invitation of fellow Missouri contractor and PCCA Past President, the late Larry Libla. “Larry called and said we’d have a good time and learn a lot, so we went,” Bob said. And they haven’t stopped going since. “We turned it into a family vacation. Over the years, we’ve met a lot of good people—good contacts and good friends.”

Steve’s first convention was the following year in Naples, Fla., when Ken Trawick was president. He’s been to every convention since and has missed just two mid-year meetings. Steve was asked to join the PCCA Board of Directors in 2003, and in 2004 President Steve Spears asked him, Tony Briggs, and Matt Trawick to help create PCCA’s Young Construction Professionals (YCP) Program, which flourished and has since grown into the association’s Leadership Development Program (LDP).



Steve takes pride in the development of the LDP and the PCCA Project Manager Academy, and he finds them very useful in his work. “I use things daily that I have learned in these programs,” he said. “They are probably the best things that PCCA offers, and they are just not used by enough of our members. I am really proud of how Heath has taken over with the education program and where it is headed.”

Steve is also prominent in PCCA’s outreach efforts to federal government agencies and industry groups. In recent years, Steve has traveled (at his own expense) to Washington, D.C., several times to meet with the Rural Utility Service, the Labor Department’s Hour and Wage Division, and the NTCA.

“When Steve joined the Board, he hit the ground running,” said PCCA Executive Vice President Tim Wagner. “He never treated it like a title; he treated it like a job, and he’s worked really hard at it. The energy that he and Heath bring to PCCA is special, and it’s very rare.”

Bob Sellenriek sees parallels between his sons’ involvement in PCCA and in Sellenriek Construction. “We needed young people in PCCA, made an effort to get them more involved, and now it’s working. It’s like with our company—we have the young people involved who are going to take us to the next level.”

And like the people at Sellenriek Construction, their clients, and the people of Jonesburg, the people at PCCA are far better off due to the hard work of Steve Sellenriek. And we’re having a good time, too!



PCCA

70th ANNUAL CONVENTION

Hyatt Regency Aruba Resort Spa and Casino

March 6-11, 2015

Thank You Sponsors



**PREFORMED
LINE PRODUCTS**
The connection you can count on.





DIG IN THE RIGHT PLACE EVERY TIME

When accuracy really matters, count on McLaughlin locators to precisely verify utilities. Then reduce jobsite risk even further by potholing with the new Vermeer VX50 Vacuum Excavator by McLaughlin. It's the perfect combination to get the job done right. Every time.



McLAUGHLIN
Providing Solutions Since 1921

800.435.9340 | mclaughlinunderground.com

VACUUM EXCAVATORS | AUGER BORING | HOLE HAMMER | LOCATORS | MOLEING

Vermeer, the Vermeer logo and Equipped to Do More are trademarks of Vermeer Manufacturing Company in the U.S. and/or other countries. McLaughlin and the McLAUGHLIN LOGO are trademarks of McLaughlin Group, Inc. © 2015 McLaughlin Group, Inc. All Rights Reserved.

FERC Plans Conferences Focused on EPA's Clean Power Plan

The Federal Energy Regulatory Commission (FERC) in December announced a series of technical conferences to discuss implications of compliance approaches to the EPA's proposed Clean Power Plan rule. The conferences will focus on issues related to electric reliability, wholesale electric markets and operations, and energy infrastructure. The conferences began with a commission-led National Overview session at FERC headquarters on February 19. Subsequent staff-led regional technical conferences will be held in Washington, St. Louis, and Denver on dates to be announced. Commission members may participate in those conferences.

"The commission clearly has a role to play in ensuring that the nation's energy markets and infrastructure adapt to support compliance with the proposed Clean Power Plan," said FERC Chairman Cheryl A. LaFleur. "These technical conferences will be an opportunity for the commission to hear from a wide range of stakeholders across the country on issues related to reliability, market operations, and energy infrastructure."

Topics at the National Overview technical conference included:

- Whether state utility and environmental regulators, regulated entities, and others have the appropriate tools to identify reliability and/or market issues that may arise.
- Potential strategies for complying with the EPA regulations and coordinating with FERC-jurisdictional wholesale and interstate markets.
- How planning entities, industry, and states coordinate reliability and infrastructure planning processes with environmental compliance efforts to ensure the adequate development of new infrastructure and to manage any potential reliability and operational impacts of proposed compliance plans.

Each of the three regional conferences will include discussion of potential effects on each region's reliability, power system operations, and generator dispatch under various compliance approaches. Further information also will be posted on the Calendar of Events on the FERC website, www.ferc.gov, prior to the conferences.

Chamber Analysis Details State Concerns with Proposed EPA Power Plant Regulations

A comprehensive new analysis released in January by the U.S. Chamber's Institute for 21st Century Energy demonstrates the severity and breadth of state objections to EPA's proposed clean power plan rule.

Released last June by the Obama administration, the rule represents one of the largest and costliest regulatory actions in history. Last fall, stakeholders and the public were invited to submit comments to EPA for consideration. All fifty states, often through their public

utility commissions or environmental agencies, submitted comments.

"What is truly striking is the level of concern many states have regarding EPA's rule—whether they are blue states, red states, or purple states," said Karen Harbert, president and CEO of the Energy Institute. "Keeping the power on and keeping electricity affordable are not partisan issues, and indeed those responsible for critical functions in many states of all political stripes are telling the Obama administration that major

changes must be made to this rule."

The Energy Institute's analysis identifies 12 significant and common themes raised by states, ranging from rushed regulatory timelines (34 states), the legal basis of the rule (32 states), threats to reliability (32 states), and negative economic consequences (28 states). At least 40 states questioned the achievability of at least one of the "building blocks" upon which the rule is based.

"EPA has emphasized from the start that listening to the states and to stake-

Continued on page 26

Power News

Continued from page 25

holders would be a top priority during this rulemaking process, so it is time to turn that rhetoric into action and go back to the drawing board,” Harbert said. “These issues are too serious and too abundant to be ignored.”

Among the other common areas of concern for states identified in the analysis are technological achievability, mistakes and errors, interim compliance targets, lack of credit for early action, treatment

of nuclear generation, lack of consideration for stranded costs, goals in comparison to new power plant rules, and estimates of plant generation capacity.

The complete guide—*In Their Own Words: A Guide to States’ Concerns Regarding the Environmental Protection Agency’s Proposed Greenhouse Gas Regulations for Existing Power Plants*—including appendices, can be viewed at www.energyxxi.org/eparule-stateanalysis.

The mission of the U.S. Chamber of Commerce’s Institute for 21st Century Energy is to unify policymakers, regulators, business leaders, and the American public behind a common sense energy strategy to help keep America secure, prosperous, and clean. Through policy development, education, and advocacy, the institute is building support for meaningful action at the local, state, national, and international levels. ■■■

New DOE Report Shows Solar Growth Spurred by Loan Program

In a new report, the Department of Energy (DOE) has highlighted the success of the Loan Programs Office’s solar projects, saying that since it financed its first five utility-scale projects in 2011, 17 additional projects have come on line without the use of loan guarantees. The report coincides with the dedication ceremony of Desert Sunlight, a 550-megawatt (MW) solar project in Riverside County, Calif.

“Without question, the Energy Department’s Loan Program Office has helped to grow the U.S. solar industry, jump-starting the widespread development of utility-scale solar,” said Rhone Resch, president and CEO of the Solar Energy Industries Association. “Desert Sunlight is yet another great success story, and completion of this project put us on course for another record-shattering year. Today, the solar industry

employs nearly 175,000 Americans, pumps \$15 billion a year into our economy, and offsets more than 20 million metric tons of damaging carbon emissions. In the past four years, employment in the solar industry has increased by more than 85 percent, and last year alone, we created one out of every 78 new jobs in America. This remarkable progress is due, in large part, to smart, effective public policies, such as the highly successful loan guarantee program and the solar Investment Tax Credit. With an estimated 20 gigawatts (GW) of solar capacity currently installed in the United States and another 20 GW in the pipeline for 2015-16, it’s clear that clean, renewable solar energy will play a major role when it comes to powering America’s future.” ■■■

Ameren Offers Constructive Alternatives to EPA’s Clean Power Plan

A white paper issued by Ameren Corporation says that constructive and common-sense alterations to the Environmental Protection Agency’s Clean Power Plan (CPP) are needed to avoid imposing staggering costs on utility customers and significant risks to electric grid reliability.

Ameren’s approach would achieve the same final CO2 emission reduction goals as EPA’s own plan while saving \$4 billion in costs and avoiding grid reliability problems related to the premature

closure of key coal-fired power plants.

Ameren’s GHG strategy proposes pragmatic changes to the EPA plan that include removing the plan’s interim targets that begin in 2020, enhancing interim reporting requirements by the states to ensure that progress is being made to achieve the 2030 target, allowing full credit for the retirement of coal-fired power plants, and allowing for a reasonable extension of the 2030 deadline if utilities are making substantive progress toward achieving the EPA’s

final greenhouse gas (GHG) goals.

Ameren’s modifications to the EPA plan would facilitate cost-effective compliance not only by Ameren, but by utilities around the country faced with complying with the agency’s proposal. Based on carefully calibrated projections of long-term regional supply-and-demand dynamics, Ameren’s GHG strategy relies on a diverse mix of coal, nuclear, natural gas, and renewable energy resources, as well as the continuation of robust energy-efficiency programs.

“The Ameren plan would save our customers billions of dollars while helping avoid substantial economic costs and consequences related to the potential degradation of electric reliability, long a bedrock component of America’s economic prosperity and widely admired standard of living,” said Warner Baxter, Ameren’s chairman, president, and chief executive officer. “Ameren’s solution also substantially reduces greenhouse gas emissions and will, in the long run, achieve the same emission reductions as EPA’s proposed rule at a significantly lower cost while safeguarding our customers’ electricity supply.”

Recognizing that the CPP will be subject to legal challenges, Ameren believes that the EPA could greatly enhance the adaptability and effectiveness of its CPP proposal with a few common-sense modifications:

- **2020 Targets:** Replace EPA’s interim target goals beginning in 2020 with a more flexible approach that provides states greater leeway in determining the proper glide path to achieve the agency’s final GHG goals by 2030.
- **Interim Reporting:** The EPA should establish enhanced interim reporting requirements by the states to facilitate monitoring and to ensure progress is being made to achieve the final 2030 targets.
- **Performance Metrics:** Revise the compliance formula to provide proper credit under EPA’s rate-based method for retiring, and not replacing, existing coal-fired power plants with fossil generation—thus giving full credit where credit is due.
- **Graduation Dates:** Offer states the flexibility to extend the 2030 deadline if a clear path to meaningful reductions is evident in a reasonable time frame.

Under the Ameren GHG strategy, by 2035 Ameren would retire more than

1800 MW (about one-third) of its coal-fired fleet, add approximately 500 MW of renewable generation, extend the license of its 1200 MW Callaway Nuclear Energy Center, add a 600 MW natural gas combined-cycle unit, and continue to offer robust energy efficiency programs.

“Ameren has developed a clear path to significantly cut greenhouse gas emis-

sions without inflicting needless pain upon our customers,” Baxter said. “The modifications we propose to the EPA’s Clean Power Plan reflect midwestern values of prudence and practicality and create a more workable alternative to the agency’s proposed rule by offering a solution to help address unreason-

Continued on page 28

Excellence In Utility Products Worldwide



*Most items in our catalog are in stock except for the specialized items we can manufacture to your specifications.

Bethea Tool and Equipment Company has over 40 years of experience as a major manufacturer and supplier of conductor installation tools and equipment for the Electric Utility Industry around the world.



Call, fax or email today for more information!

Bethea Tool and Equipment Company
 (205) 408-9416 | (205) 408-9414 Fax
www.BetheaTool.com | bte217@gmail.com

Continued from page 27

able assumptions built into the plan's building blocks. Our approach provides important environmental and climate

benefits while saving customers billions of dollars and preserving the reliable service U.S. citizens have enjoyed for

decades. We hope our proposal sparks a constructive conversation among all involved in this important issue." ❏

Navigant Foresees Growth of Utility Distribution Microgrids

Major power outages caused by extreme weather, along with the spread of distributed, renewable energy resources, have set the stage for regulatory reforms that are likely to enable both customer-owned microgrids and utility distribution microgrids (UDMs) to expand strongly in the next decade. According to Navigant Research, worldwide revenue from UDMs is expected to grow from \$1.4 billion annually in 2014 to more than \$3 billion in 2023.

Responding to this growth, in the coming months Navigant's Microgrid Service Offering Team will offer an exclusive study of small power grids that will bring together a high-level consortium of utilities, project developers, software and hardware providers, and other key microgrid and nanogrid stakeholders, to collaborate with industry peers to develop

critical knowledge and lasting relationships with key partners across the small grid industry. Beginning in March 2015, this four-to-five month multi-client study will provide critical insight into this rapidly growing and uncertain market to large North American distribution utilities and their microgrid vendors and service providers.

"For utilities, the emergence of this dynamic market carries profound, and possibly ominous, implications along with opportunities," said Peter Asmus, principal research analyst with Navigant Research and a leader of the small grid study. "There is a clear need to examine the overarching architectures and related business models for microgrids if utilities are to remain relevant in an energy future characterized by diverse, distributed energy resources." ❏

SALES

FS3^{INC}

SERVICE

SUPPLY

ARE YOU READY?



EXCAVATION VERIFICATION KIT

"NEW & IMPROVED" COMPACT BACKPACK DESIGN

THE "NEW" EV3 KIT INCLUDES:

- 1 - TRI-FOLD RULER, 3 - FOLDABLE "MARK" MARKERS, 1 - FOLDABLE "HIT" MARKER
- WHITE BOARD, MARKER SET, ERASER - ALL COMPACTED NEATLY INTO A DRAWSTRING BACKPACK

ARE YOU SAFE?



SuperSqueeze

The SuperSqueeze offers superb Wood Pole Fall Restriction and offers the easiest adjustment on the market. When combined with Buckingham's patent pending WebGrab the SuperSqueeze can be adjusted with just a flick of the wrist. Configurable to fit many climbing styles and needs.

BuckAdjuster

The BuckAdjuster is a great addition to the SuperSqueeze. It's adjustable and can be used as a primary or secondary work positioning device.



ANNANDALE, MN | PH: 877-274-7223 | WWW.FS3INC.BIZ

Frost & Sullivan Offers Renewable Energy Outlook

The past decade has witnessed significant developments in policies for renewable energy. Previously, less than 50 countries worldwide had support policies for renewable energy; this number now stands at more than 130. As a result of political and financial support, investments in renewables have risen dramatically in recent years. In fact, the European Union has set binding targets to source 20 percent of the bloc's total energy consumption from renewable energy by 2020. Accordingly, individual member states have set renewable energy consumption targets ranging from 10 percent for Malta to 49 percent for Sweden.

New analysis from Frost & Sullivan,

Annual Renewable Energy Outlook 2014, forecasts the global installed capacity of renewable energy to more than double from 1,566 gigawatts (GW) in 2012 to reach 3,203 GW in 2025 at an average annual growth rate of 5.7 percent.

Solar photovoltaic (PV) technology is expected to account for 33.4 percent of total renewable energy capacity additions over the 2012-2025 period. Wind follows closely at 32.7 percent, ahead of hydropower at 25.3 percent. Other renewable technologies will represent the remaining 8.6 percent of capacity additions. However, economic difficulties in many parts of the world are affecting the outlook for renewable energy. In much of the Western world, the weak

economic climate has impacted support schemes, which will continue to be the lifeline for many renewable energy installations until grid parity is achieved.

"It is little wonder then that renewable energy installations have seen a gradual shift in market power to emerging economies," said Frost & Sullivan Energy & Environmental Industry Director Harald Thaler. "On account of urbanization, population growth, energy security concerns, and strong economic development, regions such as Asia, Latin America, the Middle East, and Africa have increasingly been contributing to renewable energy capacity growth." ❏



FOUNDATION EQUIPMENT

EK250 SHORT MAST

TECHNICAL SPECIFICATIONS

Base	CAT C9.3 Acert Tier IV
Drilling Depth	60 ft
Drilling Diameter	156 inches
Maximum Torque	234,500 lbf.ft
Main Winch	58,700 lbf
Working Height	30 ft
Transport Weight	102,300 lbs

Authorized CZM Dealer:



817-439-0453 | blaze-equip.com

5500 Nafex Way | Fort Worth, TX 76131

A FOUNDATION EQUIPMENT COMPANY WITH AMERICA AT OUR CORE



(912) 200-7661 | CZM-US.com | 141 East Industrial Blvd | Pembroke, GA 31321

EVERYTHING HAS BEAUTY, BUT NOT EVERYONE SEES IT.

Unmask the potential of each of your candidates. GHRR redefines HR. We believe in simplicity, alongside the improvement of the hiring process. We deliver intuitive and diagnostic technology that streamlines your abilities to assess, screen, and hire qualified candidates. With comprehensive and integrated services, GHRR provides significant savings in cost, time, and effort. Our all-in-one suite of services are customized to mirror and enhance your talent screening, talent assessment, and talent acquisition needs. Let Global HR Research Redefine Your HR Expectations™.

HR. REDEFINED.™



HR. REDEFINED.

WWW.GLOBALHRRESEARCH.COM
800.790.1205

TALENT ACQUISITION
TALENT SCREENING
TALENT ASSESSMENT

FCC Increases Rural Broadband Speeds Under Connect America Fund

Broadband for rural consumers that is supported by the Connect America Fund must deliver the same speeds that 99 percent of urban Americans enjoy, the Federal Communications Commission said in an order adopted on December 11.

The FCC will now require companies receiving Connect America funding for fixed broadband to serve consumers with speeds of at least 10 Mbps for downloads and 1 Mbps for uploads. That is an increase reflecting marketplace and technological changes that have occurred since the FCC set its previous requirement of 4 Mbps/1 Mbps speeds in 2011.

According to recent data, 99 percent of Americans living in urban areas have access to fixed broadband speeds of 10/1, which can accommodate more modern applications and uses. Moreover, the vast majority of urban households are able to subscribe to even faster service.

Congress directed the FCC to make available in rural areas communications services that are reasonably comparable to those in urban areas. Increasing the Connect America speed requirement means that rural Americans, like urban

Americans, can tap the benefits provided by broadband through faster web downloads, improved video streaming, and service capable of supporting multiple users in a household.


In 2011, the FCC reformed its universal service program for rural telephone service, claiming that it could more effectively support networks delivering both broadband and voice. With the adoption of this order, the FCC is prepared to make offers of support totaling up to nearly \$1.8 billion annually to a class of larger carriers known as price cap carriers in early 2015, which will potentially expand service to more than 5 million rural Americans.

The order makes a number of adjustments to the 2011 reforms to accommodate the higher speed requirement and better target Connect America funds to efficiently expand broadband into rural areas that would not otherwise be served. These changes include:

- Increasing the terms of support for price cap carriers from five years to six years, with an option for a seventh year in certain circumstances,
- Providing increased flexibility in the

build-out requirement, while still ensuring that support recipients are reaching out to Americans that were previously unserved,

- Forbearing from certain universal service obligations in low-cost census blocks where price cap carriers are not eligible to receive Connect America support, as well as census blocks where the carriers face competition, and
- Requiring recipients that decline Connect America support in a state to continue to deliver voice service to high-cost census blocks until replaced through a competitive bidding process by another subsidized carrier that is required to deliver voice and 10/1 broadband.

The FCC said that the order also makes changes that will distribute traditional universal service support for small carriers more equitably and curb waste. Finally, the order is intended to ensure that carriers adhere to voice and broadband service obligations by setting clear consequences for failing to meet these standards. 

FCC Finds U.S. Broadband Deployment Not Keeping Pace, Updates Broadband Speed Benchmark

According to the 2015 Broadband Progress Report adopted on January 29 by the Federal Communications Commission, broadband deployment in the United States—especially in rural areas—is failing to keep pace with today’s advanced, high-quality voice, data, graphics, and video offerings.

Reflecting advances in technology, market offerings by broadband providers, and consumer demand, the FCC updat-

ed its broadband benchmark speeds to 25 megabits per second (Mbps) for downloads and 3 Mbps for uploads. The FCC said that the 4 Mbps/1 Mbps standard set in 2010 is dated and inadequate for evaluating whether advanced broadband is being deployed to all Americans in a timely way.

Using this updated service benchmark, the FCC’s 2015 report finds that 55 million Americans (17 percent of the population) lack access to advanced broadband. Moreover,

Continued on page 32

Telecom News

Continued from page 31

a significant digital divide remains between urban and rural America: More than half of all rural Americans lack access to 25 Mbps/3 Mbps service.

The divide is still greater on Tribal lands and in U.S. territories, according to the FCC, where nearly two-thirds of residents lack access to today's speeds. And 35 percent of schools across the nation still lack access to fiber networks capable of delivering the advanced broadband required to support today's digital-learning tools.

The FCC said that while significant progress in broadband deployment has been made, these advances are not occurring broadly enough or quickly enough. The report concludes that more work needs to be done by the private and public sectors to expand robust broadband to all Americans in a timely way, and the accompanying Notice of Inquiry seeks comment on what additional steps the FCC can take to accelerate broadband deployment.

Key findings of the progress report include:

- 17 percent of all Americans (55 million people) lack access to 25 Mbps/3 Mbps service.
- 53 percent of rural Americans (22 million people) lack access to 25 Mbps/3 Mbps. By contrast, only 8 percent of urban Americans lack access to 25 Mbps/3 Mbps broadband.

- Rural America continues to be underserved at all speeds: 20 percent lack access even to service at 4 Mbps/1 Mbps, down only 1 percent from 2011, and 31 percent lack access to 10 Mbps/1 Mbps, down only 4 percent from 2011.
- 63 percent of Americans living in U.S. territories (2.6 million people) lack access to 25 Mbps/3 Mbps broadband. 79 percent of those living in rural territorial areas (880,000 people) lack access.
- Overall, the gap in availability of broadband at 25/3 closed by only 3 percentage points last year, from 20 percent lacking access in 2012 to 17 percent in 2013.
- Overall, the broadband availability gap closed by only 3 percent last year.
- Americans living in rural and urban areas adopt broadband at similar rates where 25 Mbps/3 Mbps service is available, 28 percent in rural areas and 30 percent in urban areas. Section 706 of the Telecommunications Act of 1996 requires the FCC to report annually on whether broadband "is being deployed to all Americans in a reasonable and timely fashion" and to take "immediate action" if it is not. Congress defined broadband as "high-quality" capability that allow users to "originate and receive high-quality voice, data, graphics, and video" services.

Hitting buried utilities?

Go with the Construction Contractor's Tool of Choice



PIPE & CABLE LOCATOR

**The Multi-Frequency
Pipe & Cable Locator**



Included: XTpc+ receiver, transmitter and accessories



*Trade in any make, any model, any condition, and **\$SAVE**

FIND IT ALL UNDERGROUND

**SCHONSTEDT
MADE IN USA**

Order/Info Hotline:
800-999-8280

Order/Info Online:
www.schonstedt.com

SCHONSTEDT 
INSTRUMENT COMPANY
Making Locating Easier Since 1953

New York Pushes Broadband Agenda

New York Governor Andrew Cuomo in January outlined a \$1 billion broadband program that he said will leverage both public and private resources to ensure every New Yorker has access to high-speed internet by 2019. He called it the largest and boldest state investment in universal broadband deployment in the country.

Cuomo plans to create a \$500 million New NY Broadband Program utilizing capital funds from bank settlements to incentivize the private sector to expand high-speed broadband access in underserved and unserved areas.

Broadband providers and communities will use the funding to deliver service in a given area and must adhere to the following qualifications:

- Matching private-sector investments.** Broadband providers seeking to utilize this funding must provide at least a 1:1 financial match, which will push the size of the program above \$1 billion. The state expects that its investment will serve to stimulate competition in the broadband market where none or little exists, improving affordability and quality of service.
- Unprecedented broadband speed.** Broadband providers must provide internet speeds of at least 100 Mbps, with funding priority given to those delivering the highest speeds at the lowest cost. In certain limited cases, providers may offer 25 Mbps speeds to the most remote unserved and underserved areas of the state (more than three times the current standard) scalable to 100 Mbps or more—if this provides the best means of achieving universal broadband access to the region.
- Local input to guide development.** Building on the successful Connect NY

model, each Regional Economic Development Council (REDC) will submit a comprehensive plan to the state that identifies unserved and underserved areas; aggregates demand across

residential, institutional and business sectors; details the most cost-effective means to provide universal access; and leverages state-owned assets where possible.

Continued on page 34



 FuturePath 7-Way

Learn about the entire FuturePath Family of Products at www.duraline.com

The Best Way to Get Home FuturePath® and MicroTechnology


- Perfect for FTTH Applications
- Reduce Pedestals and Boxes
- Drops Directly to the House
- Easy Technology Upgrades
- Empty Pathways Available for Future Growth


 11400 Parkside Dr., Suite 300
 Knoxville, TN 37934
 800.847.7661

“Access to high-speed internet is critical to ensuring that all New Yorkers can reach their full potential in today’s technology-driven world,” Cuomo said. “We’re launching the largest state broadband investment in the nation in order

to make that goal a reality.”

The Cuomo administration said that broadband has never been more critical to New York’s future. Broadband is responsible for 20 percent of new jobs across all businesses and 30 percent of

new jobs in businesses with fewer than 20 employees. Farmers need broadband to manage their crops, rural doctors need it to read x-rays and scans in real-time, and students need it for online and digital learning. 


AT&T to Acquire Nextel Mexico

AT&T has entered into an agreement with NII Holdings, Inc. to acquire its wireless business in Mexico for US\$1.875 billion, less the outstanding net debt of the business at closing, in a transaction pursuant to Section 363 of the U.S. Bankruptcy Code. Under terms of the agreement, AT&T will acquire companies which operate under the name Nextel Mexico, holding all of NII’s wireless properties in Mexico, including spectrum licenses, network assets, retail stores, and approximately 3 million subscribers.

Nextel Mexico’s network covers approximately 76 million people. The acquisition of Nextel Mexico will support AT&T’s plans to bring greater competition and faster mobile internet speeds to the Mexican wireless market. AT&T plans to create the first-ever North American Mobile Service area covering over 400 million consumers and businesses in Mexico and the United States, and Nextel Mexico’s subscribers will be

included.

Combining Nextel Mexico with Iusacell will allow AT&T to more quickly improve and expand its mobile internet service to the benefit of millions of Mexicans, particularly those who live outside major metropolitan areas, than it could otherwise do without the transaction, the company said. The transaction is subject to a bankruptcy auction and approvals by the U.S. Bankruptcy Court for the Southern District of New York, which is overseeing the restructuring of NII Holdings. The transaction is also subject to regulatory approval by Mexico’s telecom regulator IFT (Instituto Federal de Telecomunicaciones).

Based on its recent positive experience with Mexico’s focused regulatory review and approval process, AT&T said it expects the transaction to close in mid-2015. 

Study Shows NTIA Broadband Grants Provided Billions in Benefits

The U.S. Commerce Department’s National Telecommunications and Information Administration (NTIA) released a new independent research study on January 14 showing that its broadband grants program resulted in billions of dollars in economic benefits to the communities served, including increased economic output and higher levels of employment.

The four-year study, prepared by the research firm ASR Analytics, examined the social and economic impacts of the \$4 billion in Recovery Act grants award-

ed by NTIA to expand broadband access and adoption across the country through the Broadband Technology Opportunities Program (BTOP). In communities where grantees built new broadband infrastructure, broadband availability grew by an estimated 2 percent more than in communities not served by a broadband grantee. That growth could be expected to translate into increased economic output of as much as \$21 billion annually, the report concluded.

“We’ve seen firsthand the transforming economic and societal impact that

broadband has on communities across the country,” said NTIA Administrator Lawrence E. Strickling. “The study released today captures only an early picture of the economic impact of our broadband grants. As more and more providers take advantage of Recovery Act-funded networks, we fully anticipate that the impact will be even greater.”

NTIA also unveiled its Broadband USA initiative aimed at finding new ways to assist communities seeking to build their broadband capacity to advance economic development.

NTIA contracted with ASR Analytics to provide an independent assessment of the social and economic impacts of BTOP. ASR Analytics' final report summarizes and synthesizes the findings of 42 separate case study reports, two interim reports, and a short-term economic impacts report. In conducting its review, ASR conducted 42 site visits with 27 different BTOP grantees between July 2011 and November 2013.

Key findings of ASR's final report include:

- On average, in only two years, BTOP grant communities experienced an estimated 2 percent greater growth in broadband availability than non-grant communities, which is estimated to generate increased annual economic

activity of between \$5.17 billion and \$21 billion.

- The additional broadband infrastructure provided by BTOP could be expected to create more than 22,000 long-term jobs and generate more than \$1 billion in additional household income each year.
- Community anchor institutions, like schools and libraries, served by BTOP infrastructure grantees in the sample experienced significantly increased speeds and lower costs. As an example, the median price paid by libraries in the sample was \$233 megabits-per-second (mbps)/month before BTOP, at a median speed of 3 mbps. As a result of the grant, the median price dropped to \$15 mbps/month and median speed

increased to 20 mbps.

Under the BTOP program, NTIA awarded 233 grants benefiting every state, five territories, and the District of Columbia, to build network infrastructure, establish public computer centers, and develop digital literacy training to expand broadband adoption.

To date, BTOP grantees have built or upgraded more than 113,000 miles of fiber and connected nearly 25,000 community anchor institutions. BTOP grantees also have established or upgraded 3,000 public computer centers, delivered more than four million training hours, and helped roughly 735,000 households sign up for broadband.

Portable Fiber Optic Cable Placement
THE GMP WHISPER MICRO CABLE BLOWING MACHINE

- ▶ 2 to 8.5 mm (.08 to .33 in.) microfiber cable O.D.
- ▶ Speeds up to 90 m/min (300 ft/min) into 4 to 18 mm (.15 to .63 in.) OD microduct — rollers are powered by a cordless drill (most types)
- ▶ Compact size and portable maneuverability for ease of handling
- ▶ Ideally suited for external or in-building cable placement




Powered by a cordless drill. (Drill not included)

SCTE Society of Cable Telecommunication Engineers
 PCCA MEMBER

GMP
 +1.215.357.5500 • GMPtools.com
 MADE IN USA

Portable Fiber Optic Cable Placement
GMP BREEZE & TORNADO CABLE BLOWING MACHINES

- ▶ 0.039 to 0.334 in. (1.0 to 8.5 mm) fiber optic cable O.D. (Breeze)
- ▶ 0.25 to 1.25 in. (6 to 32 mm) fiber optic cable O.D. (Tornado)
- ▶ Speeds up to 164 ft./min. (50 m/min.) into pre-installed micro duct (Breeze)
- ▶ Speeds up to 300 ft./min. (90m/min.) into pre-installed 1 to 2.5 in. (25 to 63 mm) diameter duct (Tornado)



Visit our website for complete details

SCTE Society of Cable Telecommunication Engineers
 PCCA MEMBER

GMP
 +1.215.357.5500 • GMPtools.com
 MADE IN USA

Safety News

Best Practices for Cross Bore Safety—Get Involved!

Any PCCA members interested in reducing cross bore risk associated with all types of utilities, there is now an opportunity to get involved. The Cross Bore Safety Association (CBSA) is creating a “Best Practice for Cross Bore Safety” document, with involvement from numerous participating organizations and their members to be inclusive of all underground utility stakeholders. Committee formation is now starting. If you are interested in participating, contact CBSA at best-practice@crossboresafety.org or Brian Mattson of Digital Control at brianm@digital-control.com. For further information, go to www.crossboresafety.org/best%20practices.htm.

The purpose of the Cross Bore

Safety Association is to bring people and organizations together to create comprehensive high quality standards, guidelines, best practices, means and methods, courses, training, instructional materials, and other related resources for the education and training of owners, installers, regulators, users, inspectors, maintainers, and others who can benefit from such so as to minimize the risk for injury, loss of life, and property damage from utility cross bores in an effective and efficient manner.

Current Effort

Recently, the CBSA Board identified the need for and approved the drafting of guidance documents to improve the efficiency, quality, and implementation of

activities related to creation avoidance and elimination of cross bores. CBSA has contacted several stakeholders to participate in the creation of a best practice document to provide underground utility operators, contractors, and service providers guidance for minimizing utility conflicts. The involvement includes regulators, equipment manufacturers, academia, national industry trade organizations, consultants, and contractors from both Canada and the United States. Those involved will help create this document thereby addressing specific issues unique to their respective organization’s goals. All stakeholders are highly encouraged to participate in this effort to create a practice that minimizes the risk associated with trenchless construction.



2015 PCCA Mid-Year Meeting
Belmond Charleston Place
Charleston, South Carolina
September 23-26

Big Changes to OSHA's Recordkeeping and Reporting

By Phillip Metcalf

As of January 1, new recordkeeping and reporting rules went into effect from the Occupational Safety and Health Administration (OSHA). These are major changes affecting all industries. This article outlines what you need to know to keep your company compliant with these rule changes.

Previously, employers had to report the following to OSHA: All work-related fatalities and work-related hospitalizations of three or more employees.

As of January 1, employers are required to report the following to OSHA: All work-related fatalities, all work-related hospitalizations of one or more employees, all work-related amputations, and all work-related losses of an eye.

Who is covered under this change? All employers under federal OSHA jurisdiction are covered. Employers located in states that operate their own safety and health programs (i.e., State Plan States) should check with their state plan for the implementation date of the new requirements. OSHA said it encouraged the states to implement the new coverage provisions on January 1, but some may not be able to meet this tight deadline.

It is important to note that this rule change also affects employers that are exempt from routinely keeping OSHA injury and illness records due to their company size or industry. This means that even if you are a small employer (10 or fewer employees), this rule applies to you.

How soon must you report the event? Within eight hours of finding out about a fatality and within 24 hours of work-related inpatient hospitalizations, all amputations, and all losses of an eye. To report an event, call the OSHA area office nearest to where you are working. A quick internet search will locate this office, or you can go to www.osha.gov/html/ramap.html. Or you can call contact OSHA's hotline number at (800) 321-6742 to report the event. OSHA is also preparing an electronic reporting form for employers, which the agency said "will soon be available."

There are a few exceptions to the rules. Employers do not have to report if the event resulted from a motor vehicle accident on a public street or highway. With that said, employers must report the event if it happened in a construction work

zone. You also do not have to report if the incident happened on a commercial or public transportation system (airplane, subway, bus, ferry, streetcar, light rail, or train).

This covers the 2015 changes to OSHA's recordkeeping rule. If you have additional questions, take a look at www.osha.gov/recordkeeping2014/index.html, or feel free to reach out to me.

Phillip Metcalf is the health, safety, and environmental manager at Wayne Farms in Dothan, Ala. He is also a consultant in the field of safety and environmental compliance to many industries, including utility construction. He can be reached at phillip.metcalf@outlook.com.

Don't just "tape and hope"
Use Splice Shield™ Environmental Barrier!

Polywater
SPLICE SHIELD

- Water Proof/Flexible Barrier
- Bonds to All Types of Cable Jackets and Metals
- One Application Needed
- Multi-Use Cartridge
- Seals Nicks and Cracks in Cable Jackets

American Polywater Corporation
1-800-328-9384 | www.polywater.com
www.polywater.com/spliceshield.asp

Vac-Tron Equipment Introduces LP 533/833 XDT

Vac-Tron Equipment, an innovation leader in industrial vacuums, potholing, daylighting, hydro excavation, air excavation,



and environmental clean-up equipment, has introduced the new LP 533/833 XDT. Powered by a 24-horsepower Kohler diesel engine, the XDT is a unit with similar performance specs as the pre-Tier 4 final DT model. It is Tier 4 compliant and competitively priced in the market.

This machine features the new Series 33 Safety Rear Door. The hydraulic screw rear door offers a high torque motor with a self-adjusting threaded shaft designed for low maintenance and easy operation. It opens to a full 90-degree angle and is equipped with a safety lock that engages automatically.

The XDT features CVS Filtration Housing. The LP ground level filtration housing also incorporates a 28-inch-diameter cyclone, four-way valve for reverse pressure, and a large silencer for quiet performance. Patent pending.

The XDT has an Optional Strong Arm to help support the weight of the vacuum hose. It has 6-inch Debris Discharge Valve for quickly off-loading liquid materials by gravity or under pressure to another container. The easy-access engine compartment aids service and regular maintenance of all components.

Cat Introduces E2 Series Mini Hydraulic Excavators

Caterpillar has announced that the five compact radius Cat E2 Series Mini Hydraulic Excavators (303.5E2, 304E2, 305E2, 305.5E2, and 308E2) will all be produced at the company's new 850,000-square-foot facility in Athens, Ga., and will also use the new High Definition Hydraulic system.

The E2 models are designed to carry on the solid performance of their E Series predecessor, while adding even greater value. For example, the new High Definition Hydraul



lic System provides a load-sensing and flow-sharing capability leading to operational precision, efficient performance, and greater controllability. The simple valve architecture reduces heat, which leads to a reduction in hydraulic instability and improved overall efficiency.

The 305.5E2, 305E2, 304E2 and 303.5E2 all include a redesigned operator station, with a wider opening, a high-quality suspension seat, easy-to-adjust arm rests, and an overall improved ergonomic layout for operator comfort and productivity.

All the E2 series models are equipped with the digital control panel specially designed for Cat Mini Excavators, COMPASS—Complete Operation, Maintenance, Performance, and Security System. Built into the COMPASS monitor are an anti-theft system, an automatic engine-idle selection, and an adjustable auxiliary-flow control for work tools. Both mainline and optional secondary auxiliary-hydraulic systems can be adjusted on a scale of 1-15 through the monitor for added control.

The E2 Series models continue to include the standard features and benefits customers expect. For example, automatic two-speed, 100 percent pilot controls, superior bucket rotation, blade float, and safety are built into every Cat mini excavator.

FS3 Is "Going to the Dogs"

FS3 Inc. will be hosting its third annual "Going to the Dogs" charity golf event on June 24 in Annandale, Minn. Thanks to the great support and participation of many PCCA members, associates, and even a few competitors, FS3 has raised money for the Animal Humane Societies and shelters.

The "Going to the Dogs" event is tons of fun and gets bet-

ter each year. Grilled steaks, chops, chicken, and all the fixings are provided along with plenty of libations, following a great day of golf in beautiful Minnesota. (We promise the snow will be gone by then!)

The continued success of this event would not be possible without the support of a wide variety of participants, hole sponsors, and many donated items. So everyone is encouraged to mark your calendars, dust off your clubs, and join us on the course for a great cause.

If you're not able to attend, please consider being a hole sponsor, donating door prizes, or even sending your own donation to show your support for these animals.

More information is available at www.fs3inc.biz.



PLP Introduces COYOTE Dome Closure CRB System

Reformed Line Products (PLP) recently introduced the COYOTE Dome Closure CRB system for optical ground wire (OPGW), designed to be easier to install and more durable. Splice technicians understand the challenge of handling and splicing OPGW cable in various construction environments. Securing the rugged exterior of metal-stranded OPGW is imperative to preventing accidental torque or tension on delicate fibers within the cable.

The new COYOTE Dome Closure CRB system for OPGW combines easier grommet sealing methods with a robust cable restraint bracket (CRB) that keeps the cable secured during and after installation. Its higher cable retention and torque restraint surpasses industry



Continued on page 41



250 UTILITY PLOW

HYDROSTATIC DRIVE

ROPS/FOPS CAB

300 HP C-9 (TIER3)



- Plow static or vibratory
- Offsetting plow, hydraulic blade lift and shaker box
- Installation of underground utility i.e.; fibre optics, copper core cable, gas and power lines

1.800.263.1060 **www.rwfbron.com**

BRON is a registered trade mark of RWF Industries a division of Roberts Welding & Fabricating Ltd.

71st Annual PCCA Convention

Ocean Reef Club | Key Largo, Florida | March 4-9, 2016



Member News

Continued from page 39

standards, making the closure less vulnerable to mishandling and as resilient as PLP's stainless steel splice case.

The COYOTE Dome Closure CRB system offers these benefits:

- Resilient. The new CRB maximizes cable retention and torque resistance.
- Simpler ordering. Just identify the type of OPGW buffer tube and fiber count. The dome design accommodates a range of cable diameters. The kit comes with all necessary materials for cable prep, fiber routing, attachment mounting, and splicing.
- New cable storage and ballistic protection systems. The COYOTE Dome Closure CRB system is compatible with the FIBERLIGN Cable Storage 2 and COYOTE Defender 2 (for ballistic protection). The dome's mounting adaptor attaches to either of these systems or directly to the structure.
- Easy re-entry and expansion. The quick-locking dome collar and end plate with separate ports allow users to add more cables to the system without disturbing those already spliced. No expensive re-entry kits are needed.
- Quick sealing. The grommet and green sealant system is a dry, stable-flow application. It requires no cure time, unlike

epoxy or caulk, which also can be sensitive to temperature extremes.


McLaughlin Gets Clemson Students in the Field

A group of Clemson University civil engineering students stepped outside the classroom recently for some hands-on learning in underground construction thanks to a neighbor who happens to be an expert in the field. Employees of McLaughlin Group Inc., a leading manufacturer of trenchless construction equipment, gave the students a demonstration in identifying and marking underground utilities, vacuum excavation, and the use of pneumatic boring tools.

The demonstration was on the property of McLaughlin Vice President Jeff Wage, who lives about 15 miles from the South



Continued on page 42



**FTTx & Enterprise
Fiber Installations
Just Got **Easier!
Faster!
More Efficient!
More Productive!****

The Gulfstream™ 200 Micro Fiber Blower from Condux!

The Condux Gulfstream 200 micro fiber optic cable blower is ideal for FTTx and Enterprise micro fiber installations. Portable and powerful, the Gulfstream 200 provides lightweight, single hand operation for installation of micro fiber from 0.8 mm to 5.5 mm in diameter. Electronic controls help protect fiber during installation, providing convenient push force, distance and speed control adjustments. Plus, the unit's compact size allows for easy transport between job sites.

Put the most advanced micro fiber installation equipment to work on your next project.
Choose the Gulfstream 200 from Condux!

CONDUX
® 1.800.533.2077 • www.condux.com

Member News

Continued from page 41

Carolina school. The company's headquarters is only 30 miles from Clemson.

"It gave the students real-world experience," Wage said. "They were able to see equipment run. They were able to speak with a global manufacturer and ask technical questions. The opportunity to see the things they've studied in the classroom in a actual setting is very valuable."

Eleven students from a graduate-level underground construction course participated. They started by learning the importance of calling 811 before digging. Next, the students saw a utility locator in action and found several utilities on the property. A Vermeer VX50 vacuum excavator by McLaughlin was used to locate utilities, a process known as potholing, and to verify their depth. Finally, the students saw a demonstration of the Vermeer Hole Hammer pneumatic piercing tool.

Such out-of-class demonstrations bridge the gap between university education and industry needs, according to Kalyan Piratla, the civil engineering professor who teaches underground construction at Clemson University. "Research has proved that students who are taught using hands-on methods better retain and retrieve information than those who are not," Piratla said.

McLaughlin also had some fun with the color scheme of its equipment. The boring tools are typically black, but the two brought to the demonstration were painted orange in a nod to Clemson's school colors.

Greenlee Launches 6-ton Pistol Grip Crimping Tool

Greenlee, a Textron company, has added the new 6-ton Pistol Grip, model EK622P-LU, to its extensive line of crimping tools. The tool offers the ergonomics, intelligence, and accountability found in all Greenlee Gator crimping products.

The 6-ton Pistol Grip is developed for underground and overhead utility applications as well as industrial and commercial environments. At just 6.5 pounds, its lightweight, ergonomic design is perfect for work in overhead or tight environments. The crimper offers a two-stage hydraulic system that has fast feed and power stroke features, automated retraction, and single trigger operation controls.



The tool comes with Intelli-CRIMP technology that monitors the tool 32 times every second. Its compatibility with Greenlee's Gator Eye allows users to get the most from their tool with the ability to track work history, generate reports and performance logs, and receive an indication when the tool needs to be recalibrated.

The tool is compatible with all major lug and splice manufacturers and both U and W style dies. It accepts Greenlee KC22 and KA22 series crimp dies and includes 04292 die adaptors, which can be used with all industry "W" style crimping dies and Greenlee KD6 style dies. It can also be used on copper material 8AWG-600MCM and aluminum material #8AWG-350MCM.

CZM Launches New Website

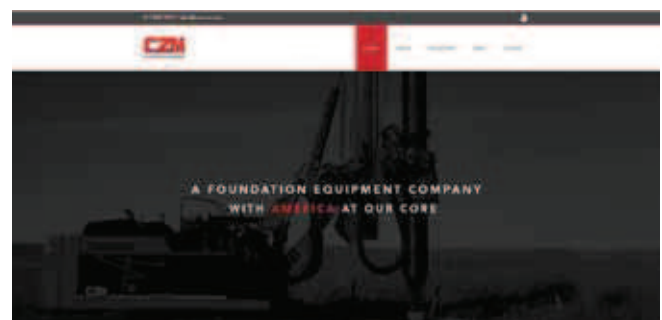
CZM Foundation Equipment has launched a new website, czm-us.com, featuring a new, dynamic design, updated framework, and a user-friendly interface showcasing the products and services provided by CZM.

In addition to the comprehensive technical information and photographs of each type of equipment CZM manufactures, the site features a 45-second time lapse video demonstrating the start-to-finish 30-day build of the company's EK200 model at the factory in Savannah, Ga.

"In developing our new site, we focused on creating a user experience for our customers and potential customers that is visibly compelling, easy to navigate, and reflective of the same innovation, strength and quality of each machine we build," said CZM Foundation Equipment President Giuliano Clo.

"We've successfully created a site that does an exceptional job of emphasizing our strongest selling points: that we are a foundation equipment company with America at our core, selling and servicing the premier quality equipment line made in the USA," said CZM U.S. Sales Manager Barrett Rahn.

The website was developed to be reactive on multiple devices: desktop, tablet, and smartphone.



HammerHead Launches New HydroGuide HG375 Winch

HammerHead Trenchless Equipment's new HG375 is the latest addition to its HydroGuide winch line. The HG375 winch boasts high-speed pullback and payout. With a maximum pressure of 3,450 psi, the HG375 delivers a pull of up to 3.75 tons, making it ideal for slitting plastic gas pipes from 1/2 inch to 2 inches in diameter. It is also designed for the pull back of duct, conduit, or slip-lining product.

Infinitely proportional control can adjust payout and pullback from as little as 3 inches per minute to 195 feet per minute. This speed and control make the HG375 ideally suited for sewer pipe cleaning work. Manual controls have been integrated for backup capability.

The HydroGuide HG375 winch has a solid dual-capstan design driven by a dual-speed radial piston motor, powered by a 21.5-horsepower, liquid-cooled Kubota diesel engine. The system is able to withstand high load ratings and improves torque transmission, providing a constant pulling force over the entire pull length, thereby reducing cable wear.

Available options include a Precision Digital Job Data Recorder to track each pull, an all-terrain track-mounted unit for access to difficult areas, and an Electrical Strike Identification system for worker safety. Winch cable is offered in a variety of lengths and diameters, and downriggers are offered in 5-foot and 10-foot versions.

"Using the available 3/8-inch cable, the new HG375 equips our customers to tackle the smaller diameter plastic pipes, from 2-inch down to about half-inch," said Alan Goodman, national sales manager for HammerHead. "It opens up a whole new market for a lot of contractors, and with all the gas line slitting going on nationwide, the timing couldn't be better. This winch was specifically designed to split plastic service lines for gas and water, and the speed and control it delivers give our customers a real advantage."



Continued on page 44

GRANDE TRUCK CENTER

SERVICE TRUCKS READY TO GO!



Call Mike King for Pricing and Immediate Delivery!

mking@grandetruck.com

1-888-633-1243
WWW.GRANDETRUCK.COM

Blackstone Forms Leading Utility and Heavy Equipment Platform

Blackstone on January 30 announced the formation of a new utility and heavy equipment platform, Utility One Source, in partnership with three family-run businesses, including PCCA member Utility Fleet Sales.

Through the partnership, private equity funds managed by Blackstone will provide growth capital for significant additional investment in equipment, innovation, and an expanded geographic footprint, which will ensure Utility One Source has the customer-focused solutions the industry requires. Importantly, each company will continue to be family-owned and operated following the investment by Blackstone.

Utility One Source intends to build upon the market positions of Utility Fleet Sales, Custom Truck & Equipment, and Forestry Equipment of Virginia (FEVA), while serving as a single source supplier for the utility and heavy equipment industries with a focus on sales, rental equipment, parts, transportation, and service.

Leveraging Blackstone's significant resources and expertise, the platform's efforts will be coordinated by Chairman Chris Ragot, whose comprehensive operating background includes serving as Group President of Terex, Vice President and General Manager of Ingersoll-Rand Europe, CEO of FreightCar America, CEO of Novariant, and CEO of Exopack.

"We are very excited to be a part of the alignment of three family-owned and operated companies that will be the initial team forming Utility One Source in partnership with Blackstone," Utility Fleet Sales CEO George McMahon said. "We look forward to continuing to expand Utility One Source and leveraging the expertise of the group to better serve our customers globally."

Vermeer D100x140 S3 Navigator HDD Offers Advanced Features

The Vermeer D100x140 Navigator horizontal directional drill already offered exceptional downhole power—now a Tier 4 final engine and other enhanced features help improve speed and simplicity.

The D100x140 S3 features a 275-horsepower CAT diesel engine that meets the Tier 4 Final emissions standards and provides 100,000 pounds of thrust/pullback and 14,000 foot-pounds of rotational torque, plus increased rotational speed of 203 rpm, providing the power downhole to improve productivity.

The D100x140 S3 is also available with the InSite asset



management system, which provides real-time machine data so that fleet managers and business owners can make informed decisions on how they use and maintain their equipment. The data can be delivered anywhere and on multiple platforms, including tablets and mobile devices.

The D100x140 S3 also comes with the DigiTrak Aurora display, which is a touch-screen interface for horizontal drilling that provides real-time locate information and enhances the operator's ability to monitor drill performance.

The D100x140 S3 offers two Firestick drill rod options—15 feet or 20 feet—to meet contractor preferences. The 15-foot rod option is applicable for jobsites that may require a smaller footprint, and those looking for maximum on-board rod footage may consider the 20-foot rod. Firestick drill rods have a one-piece construction for exceptional strength and bend radius. Stackable rod boxes with a single pin design and patent-pending auto-lock allow an additional rod to be loaded from an upper rod box.

Service and maintenance accessibility was also a factor in the design. A pivoting swing-out door provides access to hydraulic components where the pump and filters can easily be reached. A flip-up panel provides access to the engine bay, and a separate enclosure contains the battery, fuses, and controller.

Terramac Signs SMS Equipment as First Canadian Dealer

Terramac LLC, a manufacturer of innovative rubber track crawler carriers, has added SMS Equipment Inc., headquartered in Acheson, Alberta, to its dealer network.



The newest dealer in Terramac's dealer network—and the first Canadian dealer—SMS Equipment provides sales, rentals, applications expertise, and parts and service support for the Terramac RT9 crawler carrier throughout Canada.

“The addition of SMS Equipment to our dealer network demonstrates our intent to build market share in Canada, providing more customers with greater access to our RT9 crawler carriers and the unmatched product service and support that comes with the Terramac brand,” said Terramac CEO Mike Crimaldi. “With their product knowledge and experience, SMS Equipment can provide superlative support to our customers.”

The rubber tracks and low ground pressure (5.1 psi when fully loaded) allow the multi-purpose Terramac RT9 crawler carrier to cover a variety of ground and adverse weather conditions. The machine has been customized to fit more than 15 different industry specific applications to tackle a variety of jobs, including suppressing tailings dust on mines, holding welding equipment for oil and gas pipelines, and laying dirt in environmentally sensitive areas for general construction.

Made in North America, the RT9 can be ordered from the factory with the correct body configuration to accept custom accessories. Additional options for the RT9 include a back-up camera, bed lights, radio, flat bed, dump bed, track cleats, and an engine filter kit.

With an operating weight of 26,000 pounds and a maximum carrying capacity of 18,000 pounds, the RT9 is the largest mid-sized rubber track carrier that does not require special oversize permitting to transport the machine. Equipped with a 230-horsepower Cummins diesel engine in both open- and closed-cab options, the RT9 has rollover protective structure as well as falling object protective structure components.

Ditch Witch Introduces Cost-Efficient Mud Recycler

Ditch Witch recently announced the release of the MR90 mud recycler, designed to enhance cost-efficiency. The Ditch Witch MR90 is a self-contained unit that can mix and recycle drilling fluid, or “mud,” as well as handle spoils. By reclaiming, recycling, and reusing drilling mud, drill operators can save on disposal and transport costs. The MR90 saves operators even more time and money because it can be transported full of fluid.

The 25-horsepower MR90 is equipped with a hydraulic pit pump that provides more than enough mud for recycling. Pump hydraulics can be controlled by an optional remote control, which can simplify operation for smaller directional drill crews. The MR90 also boasts an automatic pit pump control that is designed to prevent overflow.

The MR90 is equipped with a 110-gallon clean tank and



a 340-gallon first-pass mud tank. Each tank has a 3-inch connection at the drain for vacuuming out mud to minimize jobsite cleanup. The MR90 also includes a 300-gallon fresh water tank to provide extra drilling fluid capacity and support for equipment cleanup, along with a high-pressure wash pump.

The MR90 offers fast setup and can be operated from a single point, eliminating the need to move the unit. The MR90’s mud-filtering system is a two-screen system with six 2.5-inch hydrocyclones that cleans mud for reuse. The screens are easy to change and service and can be hydraulically adjusted to separate spoils.

Since 1963
PELSUE
50+
years
www.pelsue.com

Uni-Lite™ Carbon Fiber Tower
lightweight, elevated three
person tie off that's ideal for
substation work. It is rated for a
900 lbs MAF

1
2
3
FT-C70
Anchor Points

AC-34RX

This patented tower can be installed using several different base plates or clamps including our new AC-R series manway clamps

www.fallarrestsafety.com • 844-TAPELSUE • sales@pelsue.com

WELCOME NEW PCCA MEMBERS

Allquip Universal, Inc., dba Access Utilities International

Fred Bloom

3212 West Capitol Ave.
West Sacramento, CA 95691
(916) 372-9138
fdbloom@auirents.com
www.auirents.com

Products: Aerial Equipment & Supplies/Cable Handling Equipment/Compounds/
Conduit & Duct/Poles & Line Hanging/Tools & Motor Equipment/Trucks & Trailers/
General Supplies & Hardware/Locating Equipment/Cranes/Directional Drilling
Supplies/Hydro - Vacuum Excavators/Mini Digger Derrick

Universal HDD

Alexander Veytsman

1221 Flex Court
Lake Zurich, IL 60047 USA
(847) 955-0050
alexv@unihdd.com
www.unihdd.com

Products: Directional Drilling Equipment/Directional Drilling Supplies

PCCA Industry Calendar

WINDPOWER 2015	May 18-21, 2015
Orange County Convention Center	Orlando, Florida
DCA Mid Year Meeting	July 22-26, 2015
Kingsmill Resort	Williamsburg, Virginia
Solar Power International	September 14-17, 2015
Anaheim Convention Center	Anaheim, California
2015 PCCA Mid-Year Meeting	September 23-26, 2015
Charleston Place	Charleston, South Carolina
ICUEE 2015	September 29-October 1, 2015
Kentucky Exposition Center	Louisville, Kentucky
UCT 2016	February 3-5, 2016
Georgia World Congress Center	Atlanta, Georgia
2016 DCA Annual Convention	February 15-19, 2016
Naples Grand Beach Resort	Naples, Florida
PCCA 71 st Annual Convention	March 4-9, 2016
Ocean Reef Club	Key Largo, Florida
2016 PCCA Mid-Year Meeting	July 20 -23, 2016
Kalahari Resort & Convention Center	Sandusky, Ohio
PCCA 72 nd Annual Convention	March 17-22, 2017
El San Juan Resort & Casino	San Juan, Puerto Rico
2017 CONEXPO-CON/AGG	March 7-11, 2017
Las Vegas Convention Center	Las Vegas, Nevada

Advertiser Index

Aevenia Inc.	17
American Polywater	37
Bethea Tool & Equipment Co., Inc.	27
Condux International	41
CZM Foundation	29
Ditch Witch	8
Dura-Line	33
FMI Corporation	6
FS3, Inc.	28
General Machine Products	35
Grande Truck Center	43
Global HR Resources	30
John Deere	Inside front cover
McLaughlin	24
NESCO, Inc.	15
2015 Convention Sponsors	23
71st Annual PCCA Convention	40
2015 PCCA Mid-Year Meeting	36
Pelsue Company	45
RWF Bron	39
Schonstedt Instrument Company	32
Scott Powerline & Utility Equipment	18
Sherman & Reilly, Inc.	4-5
Utility Fleet Sales	Inside back cover
Vac-Tron Equipment	Back cover
Vermeer Manufacturing	3
Wagner-Smith Equipment Company	10



VERSATILE. RENTAL. SOLUTIONS.

SALES | RENTAL | SERVICE | TRANSPORT



UtilityFleetSales.com



888-813-7901
solutions@utilityfleetsales.com

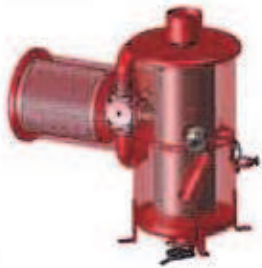
VAC-TRON LP533/833 XDT

LOW PROFILE SERIES

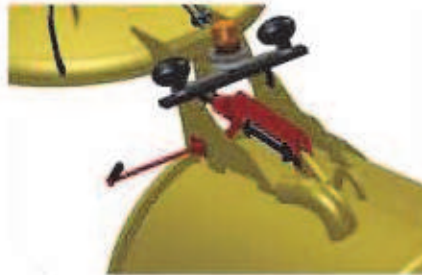
VAC-TRON
EQUIPMENT



*Shown with optional Strong Arm



CV5 FILTRATION HOUSING. The LP ground level filtration housing also incorporates a 28" (71.1 cm) diameter cyclone, four-way valve for reverse pressure, and the largest silencer in the industry for quiet performance. Patent pending.



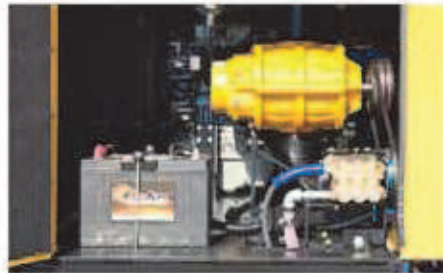
SERIES 33 REAR DOOR. The hydraulic screw rear door offers a high torque motor with a self-adjusting threaded shaft designed for low maintenance and easy operation. It opens to a 90° angle and is equipped with a safety lock that engages automatically.



OPTIONAL STRONG ARM. Optional strong arm to support the weight of the vacuum hose.



6" (15.2 CM) DEBRIS DISCHARGE VALVE. For quickly off-loading liquid materials by gravity or under pressure to another container.



ACCESSIBILITY. Easy access engine compartment for service and regular maintenance of all components.



BUILT TO LAST. Dexter torsion axles and Goodyear tires help to enhance the heavy-duty trailer under the Vac-Tron LP series vacuums.

Introducing the XDT: Powered by a 24 HP Kohler diesel engine, this is a unit with similar performance specs as the pre tier 4 final DT model. It is Tier 4 compliant and comparatively priced with the pre-tier 4 models. For the last several months Vac-Tron Equipment negotiated with engine suppliers to receive the very best discounts possible and we are confident that this current Tier 4 final pricing is very competitive with the market.

For more information contact Vac-Tron Equipment LLC at 1-888-Vactron or visit us online at www.vactron.com



WWW.VACTRON.COM

VAC-TRON
EQUIPMENT