

Energized

The theme of this issue is "Energy."

Energy is the worldwide addiction of the human race. We can't live without it, and no matter how much we try to conserve it, our appetite is insatiable.

Traditionally, we've dug the energy out of the ground, and this has required lots and lots of mechanical equipment, which uses billions of dollars in bearings, gearboxes, clutches, couplings and related devices.

Over the years, that's been really great for those of you who are involved in designing and maintaining that equipment. Of course, it's not so great when the price of oil and natural gas stays too low to justify exploration, extraction and production—when digging energy out of the ground isn't as profitable as it used to be.

Fortunately, there are other ways for us to get our fix. And renewables are definitely growing. This issue we've taken a closer look at the windpower industry, which is booming again, thanks in part to a multi-year extension of the wind energy production tax credit (PTC), which was enacted in December 2015. This allows the builders of wind farms to plan far enough into the future to make the monumental investments required.

As a result, investments in wind energy continue to grow. The U.S. Energy Information Administration (EIA) expects that installed capacity for wind power will increase by 10% by the end of 2016, and it will increase another 11% next year. Also, the first U.S. offshore wind farm is set to open this fall at the Block Island Wind Farm off Rhode Island.

Which means the wind energy industry is going to require a lot more bearings, gearboxes and related components over the next few years.

You can read about how massive 5-megawatt wind turbines are controlled in our case study from Beckhoff Automation, which begins on page 26. You can learn about all the different types of bearings required by wind turbine applications in this issue's Bearing Brief from the Bearing Specialists Association (p. 30). Or you can dive deep into the technical aspects of wind turbine gearbox lubrication by reading the technical article beginning on page 56.

But there's more to energy than simple electricity. Energy is also a feeling. Some mornings you wake up with more of it than others. And some times of year you feel more energetic, too.



For me, fall is one of those times. The kids are going back to school. The United States is about to elect a new president. Businesses are starting to think about next year, and hopes and dreams are being put down on paper in the form of budgets and sales forecasts. Fall is a time of great change. And for me, the natural sense of energy comes with the season.

And oh, yeah. Fall is also trade show season, which means we have increased opportunity to find the technologies and meet the people who can help us hit those goals we put on paper.

This issue we're focusing on IMTS, MDA, IANA and the related shows taking place at Chicago's McCormick Place September 12-17, with our coverage beginning on page 38. We've tried to highlight some of the booths and exhibitors who offer the mechanical motion components that you might need to keep your factory running or that could be designed into your next project. The importance of IMTS continues to grow for those who buy and use mechanical components. It's always been a show for those who make components, but with the addition and continued growth of the MDA and IANA portions, readers of *Power Transmission Engineering* should find a lot more of interest than in years past.

We'll be at the show, in booth N-7324. I hope you'll stop by for a visit and let us know how we're doing. Renew your subscription, chat with the editors, or just say hello.

And if you find yourself in need of some energy, we're giving it away for free. Come to the *Power Transmission Engineering*-sponsored charging station (located at the entrance to the East Building) and plug in your cell phone or tablet. You'll feel energized, I promise.

A handwritten signature in black ink that reads "Randy Stott". The signature is fluid and cursive, with "Randy" on the top line and "Stott" on the bottom line.