

**Q&A with Ted Tewksbury, President and CEO of Energy Focus, Inc. providing  
Emergency Lighting Systems and Industry leading LED Tubes with Retrofit  
Solutions that can Reduce Energy Costs for Facilities by up to 75%**



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“Energy Focus develops technologies that enable our customers to run their facilities with superior energy efficiency, health and productivity. Today, we do that by providing the highest quality LED lights that outperform, outlast and “outshine” the competition. Beyond that, we’re using technology to help transform ordinary environments into smart environments using the lighting infrastructure. In an industry dominated by commodity players all trying to sell you a cheaper light bulb, Energy Focus is unique in using technology to deliver innovative retrofit solutions for applications where performance, quality and health really matter.”- Ted Tewksbury

**CEOCFO: Dr. Tewksbury, would you tell us a bit about Energy Focus?**

**Dr. Tewksbury:** Energy Focus is a pure play LED lighting company specializing in innovative retrofit solutions. We develop advanced technology solutions that enable our customers to run their facilities with greater energy efficiency, productivity and wellness. We’re the leading supplier of LED tubes to the US Navy and now we’re expanding our military-tough products into commercial and industrial applications. Energy Focus has had a long history of technology and innovation leadership but has struggled to parlay these strengths into revenue growth and shareholder value. The Board of Directors recruited me in December 2016 as Executive Chairman and subsequently appointed me CEO to return the company to growth and profitability. As an engineer turned CEO, I have led several successful public technology company turnarounds at Entropic Communications, Integrated Device Technology and AMI Semiconductor and now I’m doing the same at Energy Focus. We’re a completely different company today than we were a year ago, with a completely new leadership team, a new sales force and a new product strategy to return to growth and profitability in 2018.

**CEOCFO: Would you give us an example of what you offer and how these product help meet your goals?**

**Dr. Tewksbury:** We offer a line of high-performance LED lamps, fixtures and luminaires but we’re best known for our industry-leading LED tubes. Lighting is the largest single power draw in commercial buildings, representing about 23% of the total. Retrofitting fluorescent tubes with LEDs can reduce this by at least 50% and up to 75% using new connected lighting technologies. Payback times in most parts of the country are currently less than 3 years and as low as one year in regions with high electricity rates. So, there’s a powerful economic incentive to

retrofit incandescent and fluorescent lights with LEDs. When customers embark on a retrofit project, they're making a significant investment in both time and money. Quality, lifetime and reliability are top priorities. That's why informed facilities managers choose Energy Focus. They may pay a little more up front but they benefit from a lower total cost of ownership over the lifetime of the product. Energy Focus tubular LEDs offer a number of benefits. We have products that plug-and-play into existing fluorescent sockets as well as direct-fit tubes that bypass the ballast for even higher efficiency. The ease and simplicity of installation reduces the labor, cost and time to do a retrofit. Our tubes are constructed with an aluminum spine for structural integrity and heat sinking. This makes them the most efficient and durable product on the market with the industry's longest lifetime, backed up by a 10-year warranty. Our proprietary tube architecture was designed for the Navy and is deployed in all 185 ships in the U.S. fleet. We've shipped over half a million tubes to the Navy without a single defect. In addition, our products have the industry's lowest optical flicker, which promotes the health and well-being of sailors working below deck for extended periods of time. The same attributes valued by the Navy make our tube the preferred choice for demanding commercial and industrial applications where performance, quality and health really matter. While lots of companies can talk about performance and quality, only Energy Focus has the track record to prove it.

**CEOCFO: *Are people paying enough attention to lighting in general?***

**Dr. Tewksbury:** Not yet, but awareness of the importance of quality lighting is increasing. We spend all our waking hours immersed in light. Lighting has a profound effect on our moods, our health and our well-being. Take optical flicker, for instance. The intensity of fluorescent and low-end LED lights fluctuates 120 times a second in synchronism with the AC line voltage. Unless it's extremely severe, we usually don't perceive this because it happens faster than the eye can follow, but flicker can cause headaches, eyestrain, fatigue and interfere with our ability to concentrate. That's why some school teachers turn out the lights in their classrooms and bring their own incandescent lamps so that their students can learn. It's also one of the reasons why our tubes are preferred in the military, hospitals and healthcare facilities. Flicker-induced maladies are exacerbated in individuals with epilepsy or autism. In addition to health issues, flicker can cause dangerous stroboscopic distortion of moving objects or machine parts in factories and has been known to interfere with bar code scanners and other electronic equipment. Energy Focus delivers the lowest optical flicker on the market and was the first company to introduce a UL-certified tube with less than 1% flicker. The message is simple - what you can't see can hurt you – and Energy Focus is committed to delivering LED lighting to optimize your health, comfort and productivity.

**CEOCFO: *What is your RedCap™ Emergency Battery Backup TLED?***

**Dr. Tewksbury:** RedCap™ is a game-changing new product that integrates emergency backup batteries inside an LED tube. All buildings are required by code to have an emergency backup battery for every ten or so fluorescent tubes in case the power goes out. Today, this is implemented with expensive, bulky battery packs with a tangle of wires that have to be installed up in the ceiling by a skilled technician. This is expensive, time consuming and can introduce health hazards if there

happens to be asbestos in the ceiling. RedCap™ makes installing an emergency battery as easy as changing a light bulb. When the power is on, RedCap™ provides light and its batteries charge up. If the power goes down, RedCap™ comes on and stays on for over 90 minutes as required by code to give people time to egress. Integrated emergency battery backup is a whole new product category invented by Energy Focus. There's nothing else like it on the market. We're already seeing strong customer demand and expect RedCap™ to drive significant sales in 2018. This is a great example of Energy Focus' commitment to using technology innovation to address unmet needs in the market place with "world's first, world's best" products. You can look forward to seeing many more innovations like this in 2018 and beyond.

**CEOCFO: *Who are you reaching out to primarily?***

**Dr. Tewksbury:** Historically, we focused primarily on military and maritime customers because we were the only lighting company that could meet their uncompromising requirements for high performance, long lifetime and durability under extremely harsh conditions. Next, we leveraged these attributes as well as low flicker to address an unmet need in healthcare and education. We always knew that numerous customers in other markets also valued our industry-leading performance, quality and 10-year warranty but we lacked the sales force to pursue them. Up until six months ago, we had a talented and hardworking but under-resourced direct sales force focused primarily on the Midwest. Since that time, we have completely rebuilt the sales team. Today, we have a new Senior Vice President of Sales and Marketing and five new regional sales managers with a combined 177 years of experience. They manage a network of over 30 sales agencies covering all of the U.S. The agencies bring a number of advantages. First, they offer a strong value proposition to customers by promoting our products together with a complete portfolio of complementary products and services from other vendors. Second, they have strong relationships with customers in new markets as well as with Energy Service Companies, lighting retrofit contractors, and a complete network of ecosystem partners that can assist customers with energy audits, installations and financing. Third, they're paid on commission and, since they don't get paid until we get paid, the model is affordable and scalable. The agencies have enabled us to expand our effective sales headcount by over a hundred with coverage across the entire United States. This is enabling us to reach customers in new markets such as retail, office buildings, parking structures, exterior lighting, government and other commercial and industrial accounts.

**CEOCFO: *Does the end customer understand some of the differences in LED lighting? Is it up to your agents to explain?***

**Dr. Tewksbury:** Educated customers understand the differences and when customers understand, our products sell themselves. That's why the U.S. Navy chose Energy Focus to retrofit their ships. It's also why we were selected as the exclusive supplier of lighting solutions by a well-known Northeast Ohio healthcare provider and why we're used by numerous other schools and hospitals. However, many uninformed customers still view LED tubes as commodity light bulbs and regard all light bulbs as being equal. Nothing could be further from the truth. An LED tube is a sophisticated electronic system. There are numerous suppliers out there selling inferior, low cost tubes but you get what you pay for. Cheap tubes use cheap LED drivers that get hot and shorten product life. Excessive heating can cause tubes to sag and fall out of the

sockets or worse, to catch on fire. Energy Focus drivers are designed for maximum efficiency and longest product life and are backed up by our 10-year warranty. Inferior products typically have poor matching of intensity and color temperature from tube to tube. These mismatches are exacerbated by differential aging over time. You may not care about this if you're retrofitting a few tubes in your garage, but these differences can be unsightly in a commercial building. Low end products also typically have high levels of flicker, contributing to the health issues I mentioned previously. Energy Focus offers the highest performance, longest lifetime and highest quality LED lamps in the industry. Our products may cost a little more up front but the savings and peace of mind more than pay this back over the total lifetime of the product. Educating customers on these points is a core component of our mission. Every one of our agents is trained in the Energy Focus value proposition so that they can explain it to our customers. Our entire sales team, including our Regional Sales Managers (RSMs), are all lighting experts with over 177 years of sales experience. Our RSMs work with our agents as well as with end customers to help them choose the best solution to maximize their energy efficiency, optimize the health and productivity of their employees, and minimize their total cost of ownership.

***CEOCFO: Are members of the workforce recognizing the problem with lighting and demanding more from their employers?***

**Dr. Tewksbury:** One of our top priorities is to raise peoples' awareness of the importance of quality lighting and to educate them on what's possible so that they will demand more from their employers. People instinctively know when lighting is bad. I already mentioned the examples of sailors getting headaches working under high flicker lighting below deck and teachers bringing their own lamps into classrooms to overcome learning difficulties. Different activities require different light qualities, intensities and color temperatures for optimum comfort and productivity. The person sitting next to a window with sunlight streaming in doesn't want as much light as the guy trying to read a book in the back of a library. People know that staring at backlit computer displays before going to bed isn't conducive to getting a quality night's sleep. At other times, people may feel that something is wrong but don't realize that lights are the culprit. For example, they may feel tired, restless, get migraine headaches or have difficulty sleeping due to poor quality lighting. This growing awareness is driving the trend toward human centric lighting, which includes the ability to adjust the intensity, color temperature and other characteristics of light to human activities. I recently asked the facilities manager at our largest healthcare customer what features he wanted in our next generation lighting. He told me that he wanted the ability to selectively tune the color temperature of the lights in his hospitals – more blue at the nurses' stations to keep them awake and alert late at night and less blue in the patients' rooms to promote sleep. This is readily achievable with today's technologies which enable lighting to be tuned and adapted to human needs and behaviors in ways that were never before possible.

***CEOCFO: Would you tell us about your manufacturing and inventory?***

**Dr. Tewksbury:** We're one of a very few companies in our industry who do our own assembly right here in the USA. The products we build at our Ohio headquarters are fully compliant with the Buy American Act, which is important for the military, the government and many other customers. In addition, we have manufacturing partners in China for our commercial

products. We actively manage these contract manufacturers through our Taiwan office to ensure that they meet our highest standards of quality and performance. On the inventory side, we had a massive oversupply when I joined the company a year ago. In addition to the progress we've made in reducing our cost structure, building the sales organization and rejuvenating the product roadmap, we have also implemented disciplined demand forecasting and inventory management systems. We have cut the number of SKUs by over 70% to simplify inventory management and reduced gross inventory by more than 30% from last year's levels. At the beginning of 2017, our Navy distributor had a year's worth of inventory on their shelves which we have now completely depleted. Today, we have tight interlock between our sales forecasting and purchasing organizations to ensure that we meet our customers' demand and minimize lead times without building excess inventory.

***CEOCFO: What surprised you over the last year as you have led the transformation at Energy Focus?***

**Dr. Tewksbury:** The biggest surprise was the high level of product, customer and geographical concentration of our sales. In 2015, 80% of our revenue came from the U.S. Navy, primarily due to one product – our military Intellitube. That level of product and customer concentration is problematic when revenue starts to decline as it did in 2016 as we started to saturate the available sockets in the Navy fleet. The remaining 20% of commercial revenue came predominantly from Ohio. Even as late as the third quarter of 2017, 25% of our revenue came from just two states – Ohio and Texas. So, in the past, we were very much a local company. I saw this as an enormous opportunity. By diversifying our sales into non-military markets and into the other 48 states, we could open up significant sales growth. Add to that new products like RedCap™ and connected lighting and it starts to get very exciting. The biggest upside surprise was how rapidly we were able to transform the company over the past year to capitalize on this opportunity. We successfully achieved our top three goals – cutting annual operating expenses by nearly 40% year-over-year, building a new nationwide sales force and revitalizing the product roadmap. Having accomplished these objectives, we are well-positioned for sales growth and profitability in 2018.

***CEOCFO: Why is Energy Focus an important company?***

**Dr. Tewksbury:** Energy Focus is important because light is important. We're in the business of developing technologies that enable our customers run their facilities with superior energy efficiency, health and productivity. Today, we do that by providing the highest quality LED lights that outperform, outlast and "outshine" the competition. Beyond that, we're using technology to help transform ordinary environments into smart environments using the lighting infrastructure. If you think about all those sockets in the ceiling, they have two very important attributes – they are ubiquitous and they have access to power. So, we can use lights, and particularly LED tubes, as a vehicle to deliver all kinds of useful functions into existing buildings -- smoke and fire detection, air quality monitoring, asset tracking, surveillance, building automation and wireless connectivity. There's a revolution going on in the lighting industry that offers the potential to transform peoples' lives in new and profound ways. In an industry dominated by commodity players all trying to sell you a cheaper light bulb, Energy Focus is unique in using technology to deliver innovative retrofit solutions for applications where performance, quality and health really matter.