

## U.S. to Face Failing Infrastructure, Dire Societal Fallout from Electrical Workforce Gap

*New “Dark by 2050” report reveals a future filled with rolling, long-term blackouts and outages*

**LINCOLNSHIRE, Ill., Oct. 16, 2020** – Today, [Klein Tools](#), a family-owned and managed hand tool manufacturer, and [The Accelerate Group](#), a Midwest-based strategic consulting and innovation firm focused on accelerating large civic change initiatives, revealed in a new study a dire need to train and employ more than 250,000 skilled electricians to keep pace with energy demand over the next decade and beyond. Nearly every element of American society will experience long-term ramifications by mid-century if this industry’s skilled trades gap remains unaddressed.

The “Dark by 2050” report outlines a progressively grim reality of unreliable electric power infrastructure over the next 30 years. In just the next decade, the U.S. needs a quarter of a million electricians (251,621 positions) to support and maintain its growing infrastructure. If current trends and projections continue, the report indicates that by 2050, this number will nearly double to 462,183 more electricians needed. Without a major infusion of qualified electricians into the workforce, the maintenance, repair and construction of critical electrical equipment will suffer severely and cause damaging effects in nearly every aspect of Americans’ lives.

### **The Challenge through 2030**

Clean energy is supposed to be the future. To deploy millions of electric vehicle charging stations, infuse rapid acceleration of renewable energy development and implement new building systems to meet clean energy standards, the country will need 224,000 more electrical workers in 2030 than are working today. Instead, the projected retirements from the field show that the gap in the workforce will exceed 251,000 workers (25% of the workforce need) by 2030.

### **The Fallout through 2040**

Over the next 20 years, the report depicts a future filled with institutions shutting down and manufacturers facing production and supply chain setbacks due to recurrent power outages. Facilities won’t be able to depend on electrical workers to perform regular equipment repairs and maintenance. And there won’t be enough utility workers to maintain the electric grid and quickly restore service during outage events. Even short outages will cause food processing plants and other manufacturing facilities to dispose of a whole day’s production at a time due to issues with start-and-stop production. Manufacturing plant workers will have to spend more time cleaning and restarting equipment. Heavy machinery that is dependent on the electrical grid will be in frequent need of repair or replacement.

Between 2030 and 2040, the lack of an electrical workforce will affect critical public facilities and organizations, such as police and fire departments, public works, hospitals, schools, airports and more. Backup power at these institutions will deplete itself quickly, as fuel and battery backups become harder to secure. Lengthier outages ultimately will mean that many Americans who are dependent on these facilities will face life without heat, air conditioning, and even food and water due to supply chain limitations and water pumping stations being forced to go offline.

Everyday luxuries like mobile phones, which often only have a few hours of backup power, will become scarce as we move forward, providing limited connectivity for people unable to even charge their devices. An increasing number of cellular data transmission stations will be offline due to a lack of power. Even if they are able to get back online, many Americans may forego charging their cellular devices to accommodate more basic needs, leaving them off the grid until energy issues are resolved.

### **Dark by 2050**

If the workforce gap continues into 2050, the Klein Tools/Accelerate Group report outlines a bleak scenario. The frequency, severity and duration of outages nationwide will grow exponentially. At the predicted rate, the

available workforce will struggle to repair, replace and construct new electrical infrastructure, which will make today's hours-long outages instead go on for days.

With a limited number of electricians to go around, preventive maintenance and upgrades will get waylaid by emergency repairs and take longer than ever to implement. This will become a particularly important issue under inclement conditions, such as storms, fires, hurricanes and tornadoes. Regions with erratic weather might regularly go weeks without power.

By 2050, businesses should expect to wait weeks or months for basic repairs, as work requests pile up for the few skilled technicians who know how to fix faulty equipment. The damage from these delays will trickle down to employees, as many businesses close their doors, even temporarily, until their equipment is back online. The livelihood of those within the communities will be threatened. The local and national economies also will suffer heavily as businesses search for ways to offset the financial losses from work stoppages and closures.

"There was a time we all thought the future would be filled with space-age technological advancements and convenience at our fingertips," said Mark Klein, co-president of Klein Tools. "As it stands, Americans are more likely to be ripping out their car batteries for power than having cars that drive themselves or fly. And this is just the tip of the iceberg in terms of what will happen to society without enough skilled electricians. We need to course-correct now and begin encouraging young people to choose a career in electrical work so that in 20 to 30 years, we, and generations of Americans to come, can live how our ancestors dreamed we would be living – and not worse than how they actually lived."

To read the complete 'Dark by 2050' report, please visit [www.kleintools.com/darkby2050](http://www.kleintools.com/darkby2050).

#### **About Klein Tools**

Since 1857 Klein Tools, a family-owned and operated company, has been designing, developing and manufacturing premium-quality, professional-grade hand tools. The majority of Klein tools are manufactured in plants throughout the United States and are the No. 1 choice among professional electricians and other tradespeople. Klein is a registered trademark of Klein Tools, Inc. For more information, visit [www.kleintools.com](http://www.kleintools.com).

#### **About The Accelerate Group**

The Accelerate Group is a strategic consulting and innovation firm focused on accelerating large civic change initiatives. We help companies, governments, and not-for-profits working to advance clean tech, smart city, innovation, good government and economic development projects and policy at a local and global scale. For more information, visit [www.theaccelerategroup.com](http://www.theaccelerategroup.com).

#### **Media Contact:**

Klein Tools

Clare Furman

[cfurman@kleintools.com](mailto:cfurman@kleintools.com)

1.847.821.4145

