







## The stakes couldn't be higher.

Public safety, continuity of service, environmental impact, compliance with governmental regulations, revenue stability—it all depends on the reliability of your transmission tower design. Taking the step from the theoretical to the actual requires thorough testing that accurately simulates the various wind, ice, snow and other environmental conditions that your structure will experience. Before you give the green light to a challenging, high budget transmission line investment, you need to be sure. You need to have confidence that your design will hold up even under the most extreme conditions.

SAE Towers' unparalleled combination of tower testing capability, capacity and experience can make your decision easier, better informed and justified. We have tested more transmission towers than any other company in the Americas.

# More than 100 different utility companies have utilized our testing services since 1970.

We perform full-scale prototype testing on a wide variety of structures—including poles, guyed towers and self-supporting towers—accommodating heights up to 246 feet and simulating the conditions and variables that concern you most. Total transverse loads of up to 620 kips and longitudinal loads of up to 490 kips can be applied simultaneously. Real-time strain gage monitoring of member loads is also available. A secondary pad allows us to facilitate pre-assembly and reduce testing lead time. In terms of the heights and variety of structures we can test, the load capacities we can apply, the number of tests we have successfully performed and the reliability of our results, we are the unquestioned leader in the Americas.

# **Belo Horizonte Tower Testing Maximum Capacities**



- Uplift/footing: 900 kips (4,000 kN)
- Compression/footing: 1,010 kips (4,500 kN)
- Base width: 85 feet, 4 inches (26.0 m)
- Tower height: 246 feet (75.0 m)
- Overturning moment at base: 116,000 ft.-kips (157,000 kN-m)

# Our customers now have access to three additional test sites.

Now that we are part of KEC International, we can offer additional testing services at three state-of- the-art facilities in India, including the highest capacity testing station in the world. The facility located in Nagpur can test towers up to 1,200 kV. It is equipped with SCADA (Supervisory Control and Data Acquisition) systems and PRFIBUS (Process Field Bus) controls.

### If SAE Towers tested it, you can be sure.

Theory confirmation, design adequacy, decision and investment justification—our tower testing delivers it all. Those are the objectives. Long-term reliability is the predictable result.

#### Our plants in the Americas have earned the following certifications:

- Quality Management Systems ISO 9001
- Environmental Management Systems ISO 14001
- Occupational Health & Safety Management Systems - OHSAS 18001



## **India Tower Testing Maximum Capacities**

	Jaipur (Rajasthan, India)	Jabalpur (Madhya Pradesh, India)	Nagpur (Maharashtra, India)
Uplift/footing:	385 kips (1,716 kN)	990 kips (4,400 kN)	2,756 kips (12,260 kN)
Compression/footing:	385 kips (1,716 kN)	990 kips (4,400 kN)	2,756 kips (12,260 kN)
Base width:	45 feet, 11 inches	78 feet, 9 inches	114 feet, 10 inches
Tower height:	147 feet, 6 inches	189 feet, 7 inches	295 feet, 3 inches
Overturning	36,878 ftkips	154,888 ftkips	442,537 ftkips
moment at base:	(50,000 kN-m)	(210,000 kN-m)	(600,000 kN-m)

# Supply Design **Optimized Transmission** Structure Solution Manufacturing **Detailing Testing Prototyping**

## **SAE Towers**

The largest steel lattice producer in the Americas providing Optimized Transmission Structure Solutions through world-class in-house capabilities.

- Field-Fit Constructability
- Cost Effectiveness
- Weight Efficiency
- Shorter/Simpler Transaction Cycles
- Improved Live Line Maintainability
- Long Term Reliability

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